

UNCLASSIFIED

**Department of Defense
Fiscal Year (FY) 2021 Budget Estimates**

February 2020



Army

Justification Book of

Other Procurement, Army

Other Support Equipment and Initial Spares, Budget Activity 3/4

UNCLASSIFIED

UNCLASSIFIED

Army • Budget Estimates FY 2021 • Procurement

Table of Contents

Introduction and Explanation of Contents..... ii

Comptroller Exhibit P-1..... iv

Line Item Table of Contents (by Appropriation then Line Number)..... xlvi

Line Item Table of Contents (Alphabetically by Line Item Title)..... li

Exhibit P-1M, Procurement Programs - Modification Summary..... lv

Exhibit P-40s..... 1

Cost Statement

The following Justification Books were prepared at a cost of \$460,860: Aircraft (ACFT), Missile (MSLS), Weapons & Tracked Combat Vehicles (WTCV), Ammunition (AMMO), Other Procurement Army (OPA) 1 - Tactical & Support Vehicles, Other Procurement Army (OPA) 2 – Communications & Electronics, Other Procurement Army (OPA) 3 & 4 - Other Support Equipment & Spares, Research, Development, Test and Evaluation (RDTE) for: Budget Activity 1, Budget Activity 2, Budget Activity 3, Budget Activity 4, Budget Activity 5A, Budget Activity 5B, Budget Activity 6, Budget Activity 7, and Budget Activity 8.

PROCUREMENT

Department of Defense Appropriations Act, 2021

OTHER PROCUREMENT, ARMY

For construction, procurement, production, and modification of Other Procurement, Army, equipment, including ordnance, spare parts, and accessories therefore; specialized equipment and training devices; expansion of public and private plants, including the land necessary therefore, for the foregoing purposes, and such lands and interests therein, may be acquired, and construction prosecuted thereon prior to approval of title; and procurement and installation of equipment, appliances, and machine tools in public and private plants; reserve plant and government and contractor-owned equipment layaway; and other expenses necessary for the foregoing purposes, \$9,549,283,000 to remain available for obligation until September 30, 2023.

The Fiscal Year (FY) 2021 Overseas Contingency Operations funding can be separated into the following categories:

- OCO for Direct War Costs (\$443,991,000.00): Direct War costs are those combat or direct combat support costs that will not continue to be expended once combat operations end at major contingency locations.
- OCO for Enduring Requirements (\$480,086,000.00): OCO for Enduring Requirements are enduring in-theater and in-CONUS costs that will likely remain after combat operations cease, and have previously been funded in OCO.
- OCO for Base Requirements (\$0): OCO for Base Requirements is funding to pay for base budget requirements for readiness and other support activities that are financed in the OCO budget in order for the Department to comply with the Bipartisan Budget Act (BBA) of 2019.

UNCLASSIFIED

Department of the Army
 FY 2021 President's Budget
 Exhibit P-1 FY 2021 President's Budget
 Total Obligational Authority
 (Dollars in Thousands)

15 Jan 2020

<u>Appropriation</u>	<u>FY 2019 (Base + OCO)</u>	<u>FY 2020 Base Enacted</u>	<u>FY 2020 OCO Enacted</u>	<u>FY 2020 Emergency (Included in Base Enacted)</u>
Other Procurement, Army	9,240,568	7,581,524	1,080,504	
Total Department of the Army	9,240,568	7,581,524	1,080,504	

UNCLASSIFIED

Department of the Army
 FY 2021 President's Budget
 Exhibit P-1 FY 2021 President's Budget
 Total Obligational Authority
 (Dollars in Thousands)

15 Jan 2020

<u>Appropriation</u>	<u>FY 2020 Total Enacted (Base + OCO)</u>	<u>FY 2021 Base</u>	<u>FY 2021 OCO for Base Requirements</u>	<u>FY 2021 OCO for Direct War and Enduring Costs</u>
Other Procurement, Army	8,662,028	8,625,206		924,077
Total Department of the Army	8,662,028	8,625,206		924,077

UNCLASSIFIED

Department of the Army
FY 2021 President's Budget
Exhibit P-1 FY 2021 President's Budget
Total Obligational Authority
(Dollars in Thousands)

15 Jan 2020

<u>Appropriation</u>	<u>FY 2021 Total OCO</u>	<u>FY 2021 Total (Base + OCO)</u>
Other Procurement, Army	924,077	9,549,283
Total Department of the Army	924,077	9,549,283

UNCLASSIFIED

Department of the Army
 FY 2021 President's Budget
 Exhibit P-1 FY 2021 President's Budget
 Total Obligational Authority
 (Dollars in Thousands)

15 Jan 2020

Appropriation: Other Procurement, Army

Budget Activity	FY 2019 (Base + OCO)	FY 2020 Base Enacted	FY 2020 OCO Enacted	FY 2020 Emergency (Included in Base Enacted)
01. Tactical and Support Vehicles	2,423,219	1,842,185	183,107	
02. Communications and Electronics Equipment	4,761,456	3,742,097	440,861	
03. Other Support Equipment	2,046,076	1,987,485	456,536	
04. Spare and Repair Parts	9,817	9,757		
Total Other Procurement, Army	9,240,568	7,581,524	1,080,504	

UNCLASSIFIED

Department of the Army
 FY 2021 President's Budget
 Exhibit P-1 FY 2021 President's Budget
 Total Obligational Authority
 (Dollars in Thousands)

15 Jan 2020

Appropriation: Other Procurement, Army

Budget Activity	FY 2020 Total Enacted (Base + OCO)	FY 2021 Base	FY 2021 OCO for Base Requirements	FY 2021 OCO for Direct War and Enduring Costs
01. Tactical and Support Vehicles	2,025,292	1,457,919		48,729
02. Communications and Electronics Equipment	4,182,958	5,202,031		445,910
03. Other Support Equipment	2,444,021	1,955,306		429,438
04. Spare and Repair Parts	9,757	9,950		
Total Other Procurement, Army	8,662,028	8,625,206		924,077

UNCLASSIFIED

Department of the Army
 FY 2021 President's Budget
 Exhibit P-1 FY 2021 President's Budget
 Total Obligational Authority
 (Dollars in Thousands)

15 Jan 2020

Appropriation: Other Procurement, Army

<u>Budget Activity</u>	<u>FY 2021 Total OCO</u>	<u>FY 2021 Total (Base + OCO)</u>
01. Tactical and Support Vehicles	48,729	1,506,648
02. Communications and Electronics Equipment	445,910	5,647,941
03. Other Support Equipment	429,438	2,384,744
04. Spare and Repair Parts		9,950
Total Other Procurement, Army	924,077	9,549,283

UNCLASSIFIED

Department of the Army
 FY 2021 President's Budget
 Exhibit P-1 FY 2021 President's Budget
 Total Obligational Authority
 (Dollars in Thousands)

15 Jan 2020

Appropriation: 2035A Other Procurement, Army

Line No	Item Nomenclature	Ident Code	FY 2019 (Base + OCO)		FY 2020 Base Enacted		FY 2020 OCO Enacted		FY 2020 Emergency (Included in Base Enacted)		S e c -
			Quantity	Cost	Quantity	Cost	Quantity	Cost	Quantity	Cost	
Budget Activity 01: Tactical and Support Vehicles											
Tactical Vehicles											
1	Tactical Trailers/Dolly Sets	A		8,850		12,993					U
2	Semitrailers, Flatbed:	A		29,941		102,386					U
3	Semitrailers, tankers	A									U
4	HI MOB MULTI-PURP WHLD VEH (HMMWV)			190,893		127,271					U
5	Ground Mobility Vehicles (GMV)	A		42,695		37,038					U
6	ARNG HMMWV Modernization Program	A		100,000		100,000					U
7	JOINT LIGHT TACTICAL VEHICLE	A	3557	1,279,437		972,407					U
8	JOINT LIGHT TACTICAL VEHICLE FAMILY OF VEHICL	A									U
9	TRUCK, DUMP, 20T (CCE)			5,061		10,838					U
10	Family Of Medium Tactical Veh (FMTV)			123,464		138,057					U
11	Family of Cold Weather All-Terrain Vehicle (C	A									U
12	Firetrucks & Associated Firefighting Equip			14,842		28,048					U
13	Family Of Heavy Tactical Vehicles (FHTV)			160,897		9,969		26,917			U
14	PLS ESP	A				6,280		16,941			U
15	Hvy Expanded Mobile Tactical Truck Ext Serv			109,764		131,841		62,734			U
16	HMMWV Recapitalization Program					30,734					U
17	Tactical Wheeled Vehicle Protection Kits	A		83,138		45,113		50,000			U

P-121PB: FY 2021 President's Budget (Published Version), as of January 15, 2020 at 14:57:48

UNCLASSIFIED

Department of the Army
 FY 2021 President's Budget
 Exhibit P-1 FY 2021 President's Budget
 Total Obligational Authority
 (Dollars in Thousands)

15 Jan 2020

Appropriation: 2035A Other Procurement, Army

Line No	Item Nomenclature	Ident Code	FY 2020 Total Enacted (Base + OCO)		FY 2021 Base		FY 2021 OCC for Base Requirements		FY 2021 OCO for Direct War and Enduring Costs		S e c
			Quantity	Cost	Quantity	Cost	Quantity	Cost	Quantity	Cost	
<u>Budget Activity 01: Tactical and Support Vehicles</u>											
Tactical Vehicles											
1	Tactical Trailers/Dolly Sets	A		12,993		12,986					U
2	Semitrailers, Flatbed:	A		102,386		31,443					U
3	Semitrailers, tankers	A				17,082					U
4	HI MOB MULTI-PURP WHLD VEH (HMMWV)			127,271		44,795					U
5	Ground Mobility Vehicles (GMV)	A		37,038		37,932					U
6	ARNG HMMWV Modernization Program	A		100,000							U
7	JOINT LIGHT TACTICAL VEHICLE	A		972,407							U
8	JOINT LIGHT TACTICAL VEHICLE FAMILY OF VEHICL	A				894,414					U
9	TRUCK, DUMP, 20T (CCE)			10,838		29,368					U
10	Family Of Medium Tactical Veh (FMTV)			138,057		95,092					U
11	Family of Cold Weather All-Terrain Vehicle (C	A				999					U
12	Firetrucks & Associated Firefighting Equip			28,048		27,687					U
13	Family Of Heavy Tactical Vehicles (FHTV)			36,886					6,500		U
14	PLS ESP	A		23,221		21,969			15,163		U
15	Hvy Expanded Mobile Tactical Truck Ext Serv			194,575		65,635					U
16	HMMWV Recapitalization Program			30,734		5,927					U
17	Tactical Wheeled Vehicle Protection Kits	A		95,113		36,497			27,066		U

UNCLASSIFIED

Department of the Army
 FY 2021 President's Budget
 Exhibit P-1 FY 2021 President's Budget
 Total Obligational Authority
 (Dollars in Thousands)

15 Jan 2020

Appropriation: 2035A Other Procurement, Army

Line No	Item Nomenclature	Ident Code	FY 2021 Total		FY 2021 Total		S e c
			Quantity	Cost	(Base + OCO) Quantity	Cost	
<u>Budget Activity 01: Tactical and Support Vehicles</u>							
Tactical Vehicles							
1	Tactical Trailers/Dolly Sets	A			12,986		U
2	Semitrailers, Flatbed:	A			31,443		U
3	Semitrailers, tankers	A			17,082		U
4	HI MOB MULTI-PURP WHLD VEH (HMMWV)				44,795		U
5	Ground Mobility Vehicles (GMV)	A			37,932		U
6	ARNG HMMWV Modernization Program	A					U
7	JOINT LIGHT TACTICAL VEHICLE	A					U
8	JOINT LIGHT TACTICAL VEHICLE FAMILY OF VEHICL	A			894,414		U
9	TRUCK, DUMP, 20T (CCE)				29,368		U
10	Family Of Medium Tactical Veh (FMTV)				95,092		U
11	Family of Cold Weather All-Terrain Vehicle (C	A			999		U
12	Firetrucks & Associated Firefighting Equip				27,687		U
13	Family Of Heavy Tactical Vehicles (FHTV)			6,500	6,500		U
14	PLS ESP	A		15,163	37,132		U
15	Hvy Expanded Mobile Tactical Truck Ext Serv				65,635		U
16	HMMWV Recapitalization Program				5,927		U
17	Tactical Wheeled Vehicle Protection Kits	A		27,066	63,563		U

P-121PB: FY 2021 President's Budget (Published Version), as of January 15, 2020 at 14:57:48

UNCLASSIFIED

Department of the Army
 FY 2021 President's Budget
 Exhibit P-1 FY 2021 President's Budget
 Total Obligational Authority
 (Dollars in Thousands)

15 Jan 2020

Appropriation: 2035A Other Procurement, Army

Line No	Item Nomenclature	Ident Code	FY 2019 (Base + OCO)		FY 2020 Base Enacted		FY 2020 OCO Enacted		FY 2020 Emergency (Included in Base Enacted)		S e c
			Quantity	Cost	Quantity	Cost	Quantity	Cost	Quantity	Cost	
18	Modification Of In Svc Equip			256,642		57,112		26,515			U
	Non-Tactical Vehicles										
19	Heavy Armored Vehicle			790		791					U
20	Passenger Carrying Vehicles			1,390		1,416					U
21	NonTactical Vehicles, Other	A		15,415		29,891					U
Total Tactical and Support Vehicles				2,423,219		1,842,185		183,107			
Budget Activity 02: Communications and Electronics Equipment											
Comm - Joint Communications											
22	Signal Modernization Program	A		82,180		128,913					U
23	Tactical Network Technology Mod In Svc	A		568,367		443,439		40,000			U
24	SITUATION INFORMATION TRANSPORT	A		64,517		46,693					U
25	Joint Incident Site Communications Capability	A		13,895							U
26	JCSE Equipment (USRDECOM)			4,866		5,075					U
Comm - Satellite Communications											
27	Spectrum METSAT	A		9,176							U
28	Spectrum Portal	A		44							U
29	Defense Enterprise Wideband Satcom Systems			96,633		98,399					U
30	Transportable Tactical Command Communications	A		77,060		92,141		6,930			U
31	SHF Term			10,378		15,054					U

P-121PB: FY 2021 President's Budget (Published Version), as of January 15, 2020 at 14:57:48

UNCLASSIFIED

Department of the Army
 FY 2021 President's Budget
 Exhibit P-1 FY 2021 President's Budget
 Total Obligational Authority
 (Dollars in Thousands)

15 Jan 2020

Appropriation: 2035A Other Procurement, Army

Line No	Item Nomenclature	Ident Code	FY 2020 Total Enacted (Base + OCO)		FY 2021 Base		FY 2021 OCO for Base Requirements		FY 2021 OCO for Direct War and Enduring Costs		S e c
			Quantity	Cost	Quantity	Cost	Quantity	Cost	Quantity	Cost	
18	Modification Of In Svc Equip			83,627		114,977					U
	Non-Tactical Vehicles										
19	Heavy Armored Vehicle			791							U
20	Passenger Carrying Vehicles			1,416		1,246					U
21	NonTactical Vehicles, Other	A		29,891		19,870					U
Total Tactical and Support Vehicles				2,025,292		1,457,919				48,729	
Budget Activity 02: Communications and Electronics Equipment											
Comm - Joint Communications											
22	Signal Modernization Program	A		128,913		160,469					U
23	Tactical Network Technology Mod In Svc	A		483,439		360,379					U
24	SITUATION INFORMATION TRANSPORT	A		46,693		63,396					U
25	Joint Incident Site Communications Capability	A									U
26	JCSE Equipment (USRDECOM)			5,075		5,170					U
Comm - Satellite Communications											
27	Spectrum METSAT	A									U
28	Spectrum Portal	A									U
29	Defense Enterprise Wideband Satcom Systems			98,399		101,498					U
30	Transportable Tactical Command Communications	A		99,071		72,450			2,700		U
31	SHF Term			15,054		13,173					U

P-121PB: FY 2021 President's Budget (Published Version), as of January 15, 2020 at 14:57:48

UNCLASSIFIED

Department of the Army
 FY 2021 President's Budget
 Exhibit P-1 FY 2021 President's Budget
 Total Obligational Authority
 (Dollars in Thousands)

15 Jan 2020

Appropriation: 2035A Other Procurement, Army

Line No	Item Nomenclature	Ident Code	FY 2021 Total OCO		FY 2021 Total (Base + OCO)		S e c
			Quantity	Cost	Quantity	Cost	
18	Modification Of In Svc Equip				114,977		U
	Non-Tactical Vehicles						
19	Heavy Armored Vehicle						U
20	Passenger Carrying Vehicles				1,246		U
21	NonTactical Vehicles, Other	A			19,870		U
	Total Tactical and Support Vehicles			48,729	1,506,648		
<u>Budget Activity 02: Communications and Electronics Equipment</u>							
Comm - Joint Communications							
22	Signal Modernization Program	A			160,469		U
23	Tactical Network Technology Mod In Svc	A			360,379		U
24	SITUATION INFORMATION TRANSPORT	A			63,396		U
25	Joint Incident Site Communications Capability	A					U
26	JCSE Equipment (USRDECOM)				5,170		U
Comm - Satellite Communications							
27	Spectrum METSAT	A					U
28	Spectrum Portal	A					U
29	Defense Enterprise Wideband Satcom Systems				101,498		U
30	Transportable Tactical Command Communications	A		2,700	75,150		U
31	SHF Term				13,173		U

UNCLASSIFIED

Department of the Army
 FY 2021 President's Budget
 Exhibit P-1 FY 2021 President's Budget
 Total Obligational Authority
 (Dollars in Thousands)

15 Jan 2020

Appropriation: 2035A Other Procurement, Army

Line No	Item Nomenclature	Ident Code	FY 2019 (Base + OCO)		FY 2020 Base Enacted		FY 2020 OCO Enacted		FY 2020 Emergency (Included in Base Enacted)		S e c
			Quantity	Cost	Quantity	Cost	Quantity	Cost	Quantity	Cost	
32	Assured Positioning, Navigation and Timing	A			31,674		11,778				U
33	SMART-T (SPACE)			19,160	10,515		825				U
34	Global Brdcst Svc - GBS			17,682	11,800						U
35	ENROUTE MISSION COMMAND (EMC)	A		37,401	8,609						U
Comm - C3 System											
36	COE Tactical Server Infrastructure (TSI)	A		20,500	67,533						U
Comm - Combat Communications											
37	Handheld Manpack Small Form Fit (HMS)	A		298,475	468,026						U
38	Radio Terminal Set, MIDS LVT(2)	A		6,741	23,778		350				U
39	TRACTOR DESK			1,187							U
40	Tractor Ride			21,601							U
41	Spider Family of Networked Munitions Incr	A		13,345	10,930						U
42	Tactical Communications And Protective System	A		10,368							U
43	Unified Command Suite	A		16,270	18,291						U
44	COTS Communications Equipment	A		85,835	55,630		20,400				U
45	Family of Med Comm for Combat Casualty Care	A		22,226	16,590		1,231				U
46	Army Communications & Electronics	A			37,856						U
Comm - Intelligence Comm											
48	CI Automation Architecture (MIP)	A		27,356	10,470		6,200				U
49	Defense Military Deception Initiative	A		2,667	3,704						U

P-121PB: FY 2021 President's Budget (Published Version), as of January 15, 2020 at 14:57:48

UNCLASSIFIED

Department of the Army
 FY 2021 President's Budget
 Exhibit P-1 FY 2021 President's Budget
 Total Obligational Authority
 (Dollars in Thousands)

15 Jan 2020

Appropriation: 2035A Other Procurement, Army

Line No	Item Nomenclature	Ident Code	FY 2020 Total Enacted (Base + OCO)		FY 2021 Base		FY 2021 OCO for Base Requirements		FY 2021 OCO for Direct War and Enduring Costs		S e c
			Quantity	Cost	Quantity	Cost	Quantity	Cost	Quantity	Cost	
32	Assured Positioning, Navigation and Timing	A		43,452		134,928				12,566	U
33	SMART-T (SPACE)			11,340		8,611				289	U
34	Global Brdcst Svc - GBS			11,800		8,191				319	U
35	ENROUTE MISSION COMMAND (EMC)	A		8,609							U
Comm - C3 System											
36	COE Tactical Server Infrastructure (TSI)	A		67,533		94,871					U
Comm - Combat Communications											
37	Handheld Manpack Small Form Fit (HMS)	A		468,026		550,848					U
38	Radio Terminal Set, MIDS LVT(2)	A		24,128		8,237					U
39	TRACTOR DESK										U
40	Tractor Ride										U
41	Spider Family of Networked Munitions Incr	A		10,930		13,967					U
42	Tactical Communications And Protective System	A									U
43	Unified Command Suite	A		18,291		19,579					U
44	COTS Communications Equipment	A		76,030		94,156					U
45	Family of Med Comm for Combat Casualty Care	A		17,821		18,313				1,257	U
46	Army Communications & Electronics	A		37,856		51,480					U
Comm - Intelligence Comm											
48	CI Automation Architecture (MIP)	A		16,670		13,146				1,230	U
49	Defense Military Deception Initiative	A		3,704		5,624					U

P-121PB: FY 2021 President's Budget (Published Version), as of January 15, 2020 at 14:57:48

UNCLASSIFIED

Department of the Army
 FY 2021 President's Budget
 Exhibit P-1 FY 2021 President's Budget
 Total Obligational Authority
 (Dollars in Thousands)

15 Jan 2020

Appropriation: 2035A Other Procurement, Army

Line No	Item Nomenclature	Ident Code	FY 2021 Total		FY 2021 Total		S e c
			Quantity	Cost	(Base + OCO) Quantity	Cost	
32	Assured Positioning, Navigation and Timing	A		12,566		147,494	U
33	SMART-T (SPACE)			289		8,900	U
34	Global Brdcst Svc - GBS			319		8,510	U
35	ENROUTE MISSION COMMAND (EMC)	A					U
Comm - C3 System							
36	COE Tactical Server Infrastructure (TSI)	A				94,871	U
Comm - Combat Communications							
37	Handheld Manpack Small Form Fit (HMS)	A				550,848	U
38	Radio Terminal Set, MIDS LVT(2)	A				8,237	U
39	TRACTOR DESK						U
40	Tractor Ride						U
41	Spider Family of Networked Munitions Incr	A				13,967	U
42	Tactical Communications And Protective System	A					U
43	Unified Command Suite	A				19,579	U
44	COTS Communications Equipment	A				94,156	U
45	Family of Med Comm for Combat Casualty Care	A		1,257		19,570	U
46	Army Communications & Electronics	A				51,480	U
Comm - Intelligence Comm							
48	CI Automation Architecture (MIP)	A		1,230		14,376	U
49	Defense Military Deception Initiative	A				5,624	U

P-121PB: FY 2021 President's Budget (Published Version), as of January 15, 2020 at 14:57:48

UNCLASSIFIED

Department of the Army
 FY 2021 President's Budget
 Exhibit P-1 FY 2021 President's Budget
 Total Obligational Authority
 (Dollars in Thousands)

15 Jan 2020

Appropriation: 2035A Other Procurement, Army

Line No	Item Nomenclature	Ident Code	FY 2019 (Base + OCO)		FY 2020 Base Enacted		FY 2020 OCO Enacted		FY 2020 Emergency (Included in Base Enacted)		S e c
			Quantity	Cost	Quantity	Cost	Quantity	Cost	Quantity	Cost	
Information Security											
50	FAMILY OF BIOMETRICS	A		8,319	1,000						U
51	Information System Security Program-ISSP	A		2,000	3,600						U
52	Communications Security (COMSEC)	A		65,580	147,097						U
53	Defensive CYBER Operations	A		51,343	56,962						U
54	Insider Threat Program - Unit Activity Monito	A		330	756						U
55	Persistent Cyber Training Environment	A		3,000	3,000						U
56	Items Less Than \$5M (Info Security)	A									U
Comm - Long Haul Communications											
57	Base Support Communications			50,247	31,770		20,482				U
Comm - Base Communications											
58	Information Systems			80,064	159,009		55,800				U
59	Emergency Management Modernization Program	A		3,789	4,854						U
60	Home Station Mission Command Centers (HSMCC)	A		24,479	47,174						U
61	Joint Information Environment (JIE)	A									U
62	Installation Info Infrastructure Mod Program	A		246,770	265,494		75,820				U
Elect Equip - Tact Int Rel Act (TIARA)											
65	JTT/CIBS-M (MIP)	B		9,027	7,686						U
66	TERRESTRIAL LAYER SYSTEMS (TLS) (MIP)										U
67	DRUG INTERDICTION PROGRAM (DIP) (TIARA)			3,711							U

P-121PB: FY 2021 President's Budget (Published Version), as of January 15, 2020 at 14:57:48

UNCLASSIFIED

Department of the Army
 FY 2021 President's Budget
 Exhibit P-1 FY 2021 President's Budget
 Total Obligational Authority
 (Dollars in Thousands)

15 Jan 2020

Appropriation: 2035A Other Procurement, Army

Line No	Item Nomenclature	Ident Code	FY 2020 Total Enacted (Base + OCO)		FY 2021 Base		FY 2021 OCO for Base Requirements		FY 2021 OCO for Direct War and Enduring Costs		S e c
			Quantity	Cost	Quantity	Cost	Quantity	Cost	Quantity	Cost	
Information Security											
50	FAMILY OF BIOMETRICS	A		1,000							U
51	Information System Security Program-ISSP	A		3,600		4,596					U
52	Communications Security (COMSEC)	A		147,097		159,272			128		U
53	Defensive CYBER Operations	A		56,962		54,753					U
54	Insider Threat Program - Unit Activity Monito	A		756		1,760					U
55	Persistent Cyber Training Environment	A		3,000							U
56	Items Less Than \$5M (Info Security)	A				260					U
Comm - Long Haul Communications											
57	Base Support Communications			52,252		29,761					U
Comm - Base Communications											
58	Information Systems			214,809		147,696			15,277		U
59	Emergency Management Modernization Program	A		4,854		4,900					U
60	Home Station Mission Command Centers (HSMCC)	A		47,174		15,227					U
61	Joint Information Environment (JIE)	A				3,177					U
62	Installation Info Infrastructure Mod Program	A		341,314		300,035			74,004		U
Elect Equip - Tact Int Rel Act (TIARA)											
65	JTT/CIBS-M (MIP)	B		7,686		5,304					U
66	TERRESTRIAL LAYER SYSTEMS (TLS) (MIP)					8,081					U
67	DRUG INTERDICTION PROGRAM (DIP) (TIARA)										U

P-121PB: FY 2021 President's Budget (Published Version), as of January 15, 2020 at 14:57:48

UNCLASSIFIED

Department of the Army
 FY 2021 President's Budget
 Exhibit P-1 FY 2021 President's Budget
 Total Obligational Authority
 (Dollars in Thousands)

15 Jan 2020

Appropriation: 2035A Other Procurement, Army

Line No	Item Nomenclature	Ident Code	FY 2021 Total		FY 2021 Total		S e c
			Quantity	Cost	(Base + OCO) Quantity	Cost	
Information Security							
50	FAMILY OF BIOMETRICS	A					U
51	Information System Security Program-ISSP	A			4,596		U
52	Communications Security (COMSEC)	A		128	159,400		U
53	Defensive CYBER Operations	A			54,753		U
54	Insider Threat Program - Unit Activity Monito	A			1,760		U
55	Persistent Cyber Training Environment	A					U
56	Items Less Than \$5M (Info Security)	A			260		U
Comm - Long Haul Communications							
57	Base Support Communications				29,761		U
Comm - Base Communications							
58	Information Systems			15,277	162,973		U
59	Emergency Management Modernization Program	A			4,900		U
60	Home Station Mission Command Centers (HSMCC)	A			15,227		U
61	Joint Information Environment (JIE)	A			3,177		U
62	Installation Info Infrastructure Mod Program	A		74,004	374,039		U
Elect Equip - Tact Int Rel Act (TIARA)							
65	JTT/CIBS-M (MIP)	B			5,304		U
66	TERRESTRIAL LAYER SYSTEMS (TLS) (MIP)				8,081		U
67	DRUG INTERDICTION PROGRAM (DIP) (TIARA)						U

P-121PB: FY 2021 President's Budget (Published Version), as of January 15, 2020 at 14:57:48

UNCLASSIFIED

Department of the Army
 FY 2021 President's Budget
 Exhibit P-1 FY 2021 President's Budget
 Total Obligational Authority
 (Dollars in Thousands)

15 Jan 2020

Appropriation: 2035A Other Procurement, Army

Line No	Item Nomenclature	Ident Code	FY 2019 (Base + OCO)		FY 2020 Base Enacted		FY 2020 OCO Enacted		FY 2020 Emergency (Included in Base Enacted)		S e c
			Quantity	Cost	Quantity	Cost	Quantity	Cost	Quantity	Cost	
68	DCGS-A (MIP)			298,270		166,606		38,613			U
69	Joint Tactical Ground Station (JTAGS) (MIP)	A		5,434							U
70	TROJAN (MIP)	B		27,549		17,368		1,337			U
71	Mod of In-Svc Equip (INTEL SPT) (MIP)			49,184		59,052		2,051			U
72	CI HUMINT Auto Reprting & Coll(CHARCS) (MIP)			296							U
73	Biometric Tactical Collection Devices (MIP)	A		5,370				1,800			U
74	Items Less Than \$5.0M (MIP)			410							U
Elect Equip - Electronic Warfare (EW)											
75	Lightweight Counter Mortar Radar	A		6,107		5,400					U
76	EW Planning & Management Tools (EWPMT)	A		4,700		7,568					U
77	Air Vigilance (AV) (MIP)	A		8,497		8,953					U
78	CREW			42,651							U
79	Multi-Function Electronic Warfare (MFEW) Syst	A									U
80	Family of Persistent Surveillance Cap. (MIP)	A		20,050				31,493			U
81	Counterintelligence/Security Countermeasures			29,554		501		6,917			U
82	CI Modernization (MIP)	A		486		121					U
Elect Equip - Tactical Surv. (Tac Surv)											
83	Sentinel Mods			77,752		113,910		20,000			U
84	Night Vision Devices	A		153,451		81,526		3,676			U
85	Long Range Advanced Scout Surveillance System			2,861							U

P-121PB: FY 2021 President's Budget (Published Version), as of January 15, 2020 at 14:57:48

UNCLASSIFIED

Department of the Army
 FY 2021 President's Budget
 Exhibit P-1 FY 2021 President's Budget
 Total Obligational Authority
 (Dollars in Thousands)

15 Jan 2020

Appropriation: 2035A Other Procurement, Army

Line No	Item Nomenclature	Ident Code	FY 2020 Total Enacted (Base + OCO)		FY 2021 Base		FY 2021 OCC for Base Requirements		FY 2021 OCO for Direct War and Enduring Costs		S e c
			Quantity	Cost	Quantity	Cost	Quantity	Cost	Quantity	Cost	
68	DCGS-A (MIP)			205,219		151,886				47,709	U
69	Joint Tactical Ground Station (JTAGS) (MIP)	A									U
70	TROJAN (MIP)	B		18,705		17,593				1,766	U
71	Mod of In-Svc Equip (INTEL SPT) (MIP)			61,103		28,558				61,450	U
72	CI HUMINT Auto Reprting & Coll(CHARCS) (MIP)										U
73	Biometric Tactical Collection Devices (MIP)	A		1,800		999				12,337	U
74	Items Less Than \$5.0M (MIP)										U
Elect Equip - Electronic Warfare (EW)											
75	Lightweight Counter Mortar Radar	A		5,400		5,332					U
76	EW Planning & Management Tools (EWPMT)	A		7,568		7,849					U
77	Air Vigilance (AV) (MIP)	A		8,953		8,160					U
78	CREW										U
79	Multi-Function Electronic Warfare (MFEW) Syst	A				8,669					U
80	Family of Persistent Surveillance Cap. (MIP)	A		31,493						44,293	U
81	Counterintelligence/Security Countermeasures			7,418						49,100	U
82	CI Modernization (MIP)	A		121		300					U
Elect Equip - Tactical Surv. (Tac Surv)											
83	Sentinel Mods			133,910		58,884				33,496	U
84	Night Vision Devices	A		85,202		1,127,375				643	U
85	Long Range Advanced Scout Surveillance System										U

P-121PB: FY 2021 President's Budget (Published Version), as of January 15, 2020 at 14:57:48

UNCLASSIFIED

Department of the Army
 FY 2021 President's Budget
 Exhibit P-1 FY 2021 President's Budget
 Total Obligational Authority
 (Dollars in Thousands)

15 Jan 2020

Appropriation: 2035A Other Procurement, Army

Line No	Item Nomenclature	Ident Code	FY 2021 Total		FY 2021 Total		S e c
			Quantity	Cost	(Base + OCO) Quantity	Cost	
68	DCGS-A (MIP)			47,709		199,595	U
69	Joint Tactical Ground Station (JTAGS) (MIP)	A					U
70	TROJAN (MIP)	B		1,766		19,359	U
71	Mod of In-Svc Equip (INTEL SPT) (MIP)			61,450		90,008	U
72	CI HUMINT Auto Reprting & Coll (CHARCS) (MIP)						U
73	Biometric Tactical Collection Devices (MIP)	A		12,337		13,336	U
74	Items Less Than \$5.0M (MIP)						U
Elect Equip - Electronic Warfare (EW)							
75	Lightweight Counter Mortar Radar	A				5,332	U
76	EW Planning & Management Tools (EWPMT)	A				7,849	U
77	Air Vigilance (AV) (MIP)	A				8,160	U
78	CREW						U
79	Multi-Function Electronic Warfare (MFEW) Syst	A				8,669	U
80	Family of Persistent Surveillance Cap. (MIP)	A		44,293		44,293	U
81	Counterintelligence/Security Countermeasures			49,100		49,100	U
82	CI Modernization (MIP)	A				300	U
Elect Equip - Tactical Surv. (Tac Surv)							
83	Sentinel Mods			33,496		92,380	U
84	Night Vision Devices	A		643		1,128,018	U
85	Long Range Advanced Scout Surveillance System						U

P-121PB: FY 2021 President's Budget (Published Version), as of January 15, 2020 at 14:57:48

UNCLASSIFIED

Department of the Army
 FY 2021 President's Budget
 Exhibit P-1 FY 2021 President's Budget
 Total Obligational Authority
 (Dollars in Thousands)

15 Jan 2020

Appropriation: 2035A Other Procurement, Army

Line No	Item Nomenclature	Ident Code	FY 2019 (Base + OCO)		FY 2020 Base Enacted		FY 2020 OCO Enacted		FY 2020 Emergency (Included in Base Enacted)		S e c
			Quantity	Cost	Quantity	Cost	Quantity	Cost	Quantity	Cost	
86	Small Tactical Optical Rifle Mounted MLRF			16,990		22,623					U
87	RADIATION MONITORING SYSTEMS			17,393							U
88	Indirect Fire Protection Family Of Systems	A		291,497		29,127					U
89	FAMILY OF WEAPON SIGHTS (FWS)	A		113,630		81,541					U
90	Profiler			171							U
91	JOINT BATTLE COMMAND - PLATFORM (JBC-P)	A		401,991		256,546		25,568			U
92	JOINT EFFECTS TARGETING SYSTEM (JETS)			66,574		25,330					U
93	Mod Of In-Svc Equip (LLDR)	A		24,833		6,044					U
94	Computer Ballistics: LHMCB XM32	A		9,513		3,268		570			U
95	Mortar Fire Control System			29,149		13,199		15,975			U
96	Mortar Fire Control Systems Modifications					10,000					U
97	Counterfire Radars			324,150		16,416					U
Elect Equip - Tactical C2 Systems											
98	Army Command Post Integrated Infrastructure (A		2,284							U
99	Fire Support C2 Family	A		19,724		13,197					U
100	AIR & MSL Defense Planning & Control Sys			29,913		24,730		14,331			U
101	IAMD Battle Command System	A				29,629					U
102	Life Cycle Software Support (LCSS)			6,163		6,774					U
103	Network Management Initialization and Service	A		15,087		24,448					U
104	Maneuver Control System (MCS)	A		29,144		260					U

P-121PB: FY 2021 President's Budget (Published Version), as of January 15, 2020 at 14:57:48

UNCLASSIFIED

Department of the Army
 FY 2021 President's Budget
 Exhibit P-1 FY 2021 President's Budget
 Total Obligational Authority
 (Dollars in Thousands)

15 Jan 2020

Appropriation: 2035A Other Procurement, Army

Line No	Item Nomenclature	Ident Code	FY 2020 Total Enacted (Base + OCO)		FY 2021 Base		FY 2021 OCO for Base Requirements		FY 2021 OCO for Direct War and Enduring Costs		S e c
			Quantity	Cost	Quantity	Cost	Quantity	Cost	Quantity	Cost	
86	Small Tactical Optical Rifle Mounted MLRF			22,623		13,954					U
87	RADIATION MONITORING SYSTEMS									11	U
88	Indirect Fire Protection Family Of Systems	A		29,127		10,069				37,000	U
89	FAMILY OF WEAPON SIGHTS (FWS)	A		81,541		133,590					U
90	Profiler										U
91	JOINT BATTLE COMMAND - PLATFORM (JBC-P)	A		282,114		243,850					U
92	JOINT EFFECTS TARGETING SYSTEM (JETS)			25,330		69,641					U
93	Mod Of In-Svc Equip (LLDR)	A		6,044							U
94	Computer Ballistics: LHMBC XM32	A		3,838		7,509				280	U
95	Mortar Fire Control System			29,174		3,800				13,672	U
96	Mortar Fire Control Systems Modifications			10,000		7,292					U
97	Counterfire Radars			16,416		72,421					U
Elect Equip - Tactical C2 Systems											
98	Army Command Post Integrated Infrastructure (A				49,947					U
99	Fire Support C2 Family	A		13,197		9,390					U
100	AIR & MSL Defense Planning & Control Sys			39,061		47,374				15,143	U
101	IAMD Battle Command System	A		29,629		201,587					U
102	Life Cycle Software Support (LCSS)			6,774		4,495					U
103	Network Management Initialization and Service	A		24,448		18,651					U
104	Maneuver Control System (MCS)	A		260							U

P-121PB: FY 2021 President's Budget (Published Version), as of January 15, 2020 at 14:57:48

UNCLASSIFIED

Department of the Army
 FY 2021 President's Budget
 Exhibit P-1 FY 2021 President's Budget
 Total Obligational Authority
 (Dollars in Thousands)

15 Jan 2020

Appropriation: 2035A Other Procurement, Army

Line No	Item Nomenclature	Ident Code	FY 2021 Total		FY 2021 Total		S e c
			Quantity	Cost	(Base + OCO) Quantity	Cost	
86	Small Tactical Optical Rifle Mounted MLRF				13,954		U
87	RADIATION MONITORING SYSTEMS			11	11		U
88	Indirect Fire Protection Family Of Systems	A		37,000	47,069		U
89	FAMILY OF WEAPON SIGHTS (FWS)	A			133,590		U
90	Profiler						U
91	JOINT BATTLE COMMAND - PLATFORM (JBC-P)	A			243,850		U
92	JOINT EFFECTS TARGETING SYSTEM (JETS)				69,641		U
93	Mod Of In-Svc Equip (LLDR)	A					U
94	Computer Ballistics: LHMBC XM32	A		280	7,789		U
95	Mortar Fire Control System			13,672	17,472		U
96	Mortar Fire Control Systems Modifications				7,292		U
97	Counterfire Radars				72,421		U
Elect Equip - Tactical C2 Systems							
98	Army Command Post Integrated Infrastructure (A			49,947		U
99	Fire Support C2 Family	A			9,390		U
100	AIR & MSL Defense Planning & Control Sys			15,143	62,517		U
101	IAMD Battle Command System	A			201,587		U
102	Life Cycle Software Support (LCSS)				4,495		U
103	Network Management Initialization and Service	A			18,651		U
104	Maneuver Control System (MCS)	A					U

P-121PB: FY 2021 President's Budget (Published Version), as of January 15, 2020 at 14:57:48

UNCLASSIFIED

Department of the Army
 FY 2021 President's Budget
 Exhibit P-1 FY 2021 President's Budget
 Total Obligational Authority
 (Dollars in Thousands)

15 Jan 2020

Appropriation: 2035A Other Procurement, Army

Line No	Item Nomenclature	Ident Code	FY 2019 (Base + OCO)		FY 2020 Base Enacted		FY 2020 OCO Enacted		FY 2020 Emergency (Included in Base Enacted)		S e c
			Quantity	Cost	Quantity	Cost	Quantity	Cost	Quantity	Cost	
105	Global Combat Support System-Army (GCSS-A)	A		15,164		8,815					U
106	Integrated Personnel and Pay System-Army (IPP)	A		16,800		14,100					U
107	Reconnaissance and Surveying Instrument Set	A		6,823		11,000					U
108	MOD of In-Svc Equipment (ENFIRE)	A		1,177		15,317					U
	Elect Equip - Automation										
109	Army Training Modernization			12,265		14,578		6,014			U
110	Automated Data Processing Equip			219,812		138,215		32,700			U
111	General Fund Enterprise Business Systems Fam	A		10,976		15,002					U
112	High Perf Computing Mod Pgm (HPCMP)	A		66,330		72,610					U
113	Contract Writing System	A		5,927		6,000					U
114	CSS Communications	A				24,700					U
115	Reserve Component Automation Sys (RCAS)			27,896		27,879					U
	Elect Equip - Audio Visual Sys (A/V)										
116	TACTICAL DIGITAL MEDIA	A		4,392							U
117	Items Less Than \$5M (Surveying Equipment)			1,970		5,000					U
	Elect Equip - Support										
118	Production Base Support (C-E)			15,506							U
119	BCT Emerging Technologies	A		144,500		19,312					U
999	Classified Programs			4,501		11,910					U
	Total Communications and Electronics Equipment			4,761,456		3,742,097		440,861			

P-121PB: FY 2021 President's Budget (Published Version), as of January 15, 2020 at 14:57:48

UNCLASSIFIED

Department of the Army
 FY 2021 President's Budget
 Exhibit P-1 FY 2021 President's Budget
 Total Obligational Authority
 (Dollars in Thousands)

15 Jan 2020

Appropriation: 2035A Other Procurement, Army

Line No	Item Nomenclature	Ident Code	FY 2020 Total Enacted (Base + OCO)		FY 2021 Base		FY 2021 OCO for Base Requirements		FY 2021 OCO for Direct War and Enduring Costs		S e c
			Quantity	Cost	Quantity	Cost	Quantity	Cost	Quantity	Cost	
105	Global Combat Support System-Army (GCSS-A)	A		8,815		2,792					U
106	Integrated Personnel and Pay System-Army (IPP)	A		14,100		9,071					U
107	Reconnaissance and Surveying Instrument Set	A		11,000		12,117					U
108	MOD of In-Svc Equipment (ENFIRE)	A		15,317		3,004					U
	Elect Equip - Automation										
109	Army Training Modernization			20,592		14,574			4,688		U
110	Automated Data Processing Equip			170,915		140,619			16,552		U
111	General Fund Enterprise Business Systems Fam	A		15,002		4,448					U
112	High Perf Computing Mod Pgm (HPCMP)	A		72,610		68,405					U
113	Contract Writing System	A		6,000		8,459					U
114	CSS Communications	A		24,700		57,651					U
115	Reserve Component Automation Sys (RCAS)			27,879		14,848					U
	Elect Equip - Audio Visual Sys (A/V)										
116	TACTICAL DIGITAL MEDIA	A									U
117	Items Less Than \$5M (Surveying Equipment)			5,000		4,995					U
	Elect Equip - Support										
118	Production Base Support (C-E)										U
119	BCT Emerging Technologies	A		19,312		16,983					U
999	Classified Programs			11,910		1,582					U
Total Communications and Electronics Equipment				4,182,958		5,202,031			445,910		

P-121PB: FY 2021 President's Budget (Published Version), as of January 15, 2020 at 14:57:48

UNCLASSIFIED

Department of the Army
 FY 2021 President's Budget
 Exhibit P-1 FY 2021 President's Budget
 Total Obligational Authority
 (Dollars in Thousands)

15 Jan 2020

Appropriation: 2035A Other Procurement, Army

Line No	Item Nomenclature	Ident Code	FY 2021 Total OCO		FY 2021 Total (Base + OCO)		S e c -
			Quantity	Cost	Quantity	Cost	
105	Global Combat Support System-Army (GCSS-A)	A			2,792		U
106	Integrated Personnel and Pay System-Army (IPP)	A			9,071		U
107	Reconnaissance and Surveying Instrument Set	A			12,117		U
108	MOD of In-Svc Equipment (ENFIRE)	A			3,004		U
	Elect Equip - Automation						
109	Army Training Modernization			4,688	19,262		U
110	Automated Data Processing Equip			16,552	157,171		U
111	General Fund Enterprise Business Systems Fam	A			4,448		U
112	High Perf Computing Mod Pgm (HPCMP)	A			68,405		U
113	Contract Writing System	A			8,459		U
114	CSS Communications	A			57,651		U
115	Reserve Component Automation Sys (RCAS)				14,848		U
	Elect Equip - Audio Visual Sys (A/V)						
116	TACTICAL DIGITAL MEDIA	A					U
117	Items Less Than \$5M (Surveying Equipment)				4,995		U
	Elect Equip - Support						
118	Production Base Support (C-E)						U
119	BCT Emerging Technologies	A			16,983		U
999	Classified Programs				1,582		U
	Total Communications and Electronics Equipment			445,910	5,647,941		

P-121PB: FY 2021 President's Budget (Published Version), as of January 15, 2020 at 14:57:48

UNCLASSIFIED

Page A-9B

XXX

UNCLASSIFIED

Department of the Army
 FY 2021 President's Budget
 Exhibit P-1 FY 2021 President's Budget
 Total Obligational Authority
 (Dollars in Thousands)

15 Jan 2020

Appropriation: 2035A Other Procurement, Army

Line No	Item Nomenclature	Ident Code	FY 2019 (Base + OCO)		FY 2020 Base Enacted		FY 2020 OCO Enacted		FY 2020 Emergency (Included in Base Enacted)		S e c
			Quantity	Cost	Quantity	Cost	Quantity	Cost	Quantity	Cost	
<u>Budget Activity 03: Other Support Equipment</u>											
Chemical Defensive Equipment											
120	Protective Systems	A		2,341							U
121	Family Of Non-Lethal Equipment (FNLE)	A		33,972	3,000		25,480				U
122	Base Defense Systems (BDS)	A		39,200			39,984				U
123	CBRN Defense	A		189,271	25,828		17,461				U
124	Smoke & Obscurant Family: SOF (Non AAO Item)				5,050						U
Bridging Equipment											
125	Tactical Bridging			81,219	59,821		4,884				U
126	Tactical Bridge, Float-Ribbon			55,145	57,661						U
127	BRIDGE SUPPLEMENTAL SET	A			17,966						U
128	Common Bridge Transporter (CBT) Recap	A		55,392	43,155						U
Engineer (Non-Construction) Equipment											
129	Handheld Standoff Minefield Detection Sys-HST	B		8,471	7,570						U
130	Grnd Standoff Mine Detectn Systm (GSTAMIDS)			42,001	37,025		3,655				U
131	AREA MINE DETECTION SYSTEM (AMDS)	A		5,797							U
132	HUSKY MOUNTED DETECTION SYSTEM (HMDS)	A		35,834	47,515		28,071				U
133	Robotic Combat Support System (RCSS)			8,879	2,000		3,300				U
134	EOD Robotics Systems Recapitalization	A		17,736	23,115						U

P-121PB: FY 2021 President's Budget (Published Version), as of January 15, 2020 at 14:57:48

UNCLASSIFIED

Department of the Army
 FY 2021 President's Budget
 Exhibit P-1 FY 2021 President's Budget
 Total Obligational Authority
 (Dollars in Thousands)

15 Jan 2020

Appropriation: 2035A Other Procurement, Army

Line No	Item Nomenclature	Ident Code	FY 2020 Total Enacted (Base + OCO)		FY 2021 Base		FY 2021 OCO for Base Requirements		FY 2021 OCO for Direct War and Enduring Costs		S e c
			Quantity	Cost	Quantity	Cost	Quantity	Cost	Quantity	Cost	
Budget Activity 03: Other Support Equipment											
Chemical Defensive Equipment											
120	Protective Systems	A									U
121	Family Of Non-Lethal Equipment (FNLE)	A		28,480					25,480		U
122	Base Defense Systems (BDS)	A		39,984					98,960		U
123	CBRN Defense	A		43,289		28,456			18,887		U
124	Smoke & Obscurant Family: SOF (Non AAO Item)			5,050		13,995					U
Bridging Equipment											
125	Tactical Bridging			64,705		10,545			50,400		U
126	Tactical Bridge, Float-Ribbon			57,661		72,074					U
127	BRIDGE SUPPLEMENTAL SET	A		17,966		32,493					U
128	Common Bridge Transporter (CBT) Recap	A		43,155		62,978					U
Engineer (Non-Construction) Equipment											
129	Handheld Standoff Minefield Detection Sys-HST	B		7,570		5,570					U
130	Grnd Standoff Mine Detectn Sysm (GSTAMIDS)			40,680		2,497					U
131	AREA MINE DETECTION SYSTEM (AMDS)	A									U
132	HUSKY MOUNTED DETECTION SYSTEM (HMDS)	A		75,586		109,069					U
133	Robotic Combat Support System (RCSS)			5,300							U
134	EOD Robotics Systems Recapitalization	A		23,115		36,584					U

P-121PB: FY 2021 President's Budget (Published Version), as of January 15, 2020 at 14:57:48

UNCLASSIFIED

Department of the Army
 FY 2021 President's Budget
 Exhibit P-1 FY 2021 President's Budget
 Total Obligational Authority
 (Dollars in Thousands)

15 Jan 2020

Appropriation: 2035A Other Procurement, Army

Line No	Item Nomenclature	Ident Code	FY 2021 Total		FY 2021 Total		S e c
			Quantity	Cost	(Base + OCO) Quantity	Cost	
<u>Budget Activity 03: Other Support Equipment</u>							
Chemical Defensive Equipment							
120	Protective Systems	A					U
121	Family Of Non-Lethal Equipment (FNLE)	A		25,480		25,480	U
122	Base Defense Systems (BDS)	A		98,960		98,960	U
123	CBRN Defense	A		18,887		47,343	U
124	Smoke & Obscurant Family: SOF (Non AAO Item)					13,995	U
Bridging Equipment							
125	Tactical Bridging			50,400		60,945	U
126	Tactical Bridge, Float-Ribbon					72,074	U
127	BRIDGE SUPPLEMENTAL SET	A				32,493	U
128	Common Bridge Transporter (CBT) Recap	A				62,978	U
Engineer (Non-Construction) Equipment							
129	Handheld Standoff Minefield Detection Sys-HST	B				5,570	U
130	Grnd Standoff Mine Detectn Sysm (GSTAMIDS)					2,497	U
131	AREA MINE DETECTION SYSTEM (AMDS)	A					U
132	HUSKY MOUNTED DETECTION SYSTEM (HMDS)	A				109,069	U
133	Robotic Combat Support System (RCSS)						U
134	EOD Robotics Systems Recapitalization	A				36,584	U

P-121PB: FY 2021 President's Budget (Published Version), as of January 15, 2020 at 14:57:48

UNCLASSIFIED

Department of the Army
 FY 2021 President's Budget
 Exhibit P-1 FY 2021 President's Budget
 Total Obligational Authority
 (Dollars in Thousands)

15 Jan 2020

Appropriation: 2035A Other Procurement, Army

Line No	Item Nomenclature	Ident Code	FY 2019 (Base + OCO)		FY 2020 Base Enacted		FY 2020 OCO Enacted		FY 2020 Emergency (Included in Base Enacted)		S e c
			Quantity	Cost	Quantity	Cost	Quantity	Cost	Quantity	Cost	
135	Robotics and Applique Systems			35,456		101,056					U
136	Remote Demolition Systems	A		1,748							U
137	Render Safe Sets kits Outfits	A				18,684		84,000			U
138	< \$5M, Countermining Equipment	A		5,914							U
139	Family of Boats and Motors	A		8,006		5,745					U
	Combat Service Support Equipment										
140	Heaters and ECU's	A		10,122		7,336		8			U
141	Soldier Enhancement			1,103							U
142	Personnel Recovery Support System (PRSS)	A		10,175		4,281		5,101			U
143	Ground Soldier System	A		36,506		114,505		1,760			U
144	Mobile Soldier Power	A		30,774		29,364					U
145	Force Provider	A		55,800		8,000		56,400			U
146	Field Feeding Equipment			18,556		15,973					U
147	Cargo Aerial Del & Personnel Parachute System			46,835		42,622		2,040			U
148	Family Of Engr Combat and Construction Sets	A		13,010		11,451					U
149	Items Less Than \$5M (Eng Spt)	A		2,000		4,128					U
	Petroleum Equipment										
150	Distribution Systems, Petroleum & Water			26,471		72,118		12,409			U
	Medical Equipment										
151	Combat Support Medical			102,765		98,616		2,735			U

P-121PB: FY 2021 President's Budget (Published Version), as of January 15, 2020 at 14:57:48

UNCLASSIFIED

Department of the Army
 FY 2021 President's Budget
 Exhibit P-1 FY 2021 President's Budget
 Total Obligational Authority
 (Dollars in Thousands)

15 Jan 2020

Appropriation: 2035A Other Procurement, Army

Line No	Item Nomenclature	Ident Code	FY 2020 Total Enacted (Base + OCO)		FY 2021 Base		FY 2021 OCO for Base Requirements		FY 2021 OCO for Direct War and Enduring Costs		S e c
			Quantity	Cost	Quantity	Cost	Quantity	Cost	Quantity	Cost	
135	Robotics and Applique Systems			101,056		179,544					U
136	Remote Demolition Systems	A									U
137	Render Safe Sets kits Outfits	A		102,684		64,583			84,000		U
138	< \$5M, Countermining Equipment	A									U
139	Family of Boats and Motors	A		5,745		5,289					U
	Combat Service Support Equipment										
140	Heaters and ECU's	A		7,344		8,200			370		U
141	Soldier Enhancement										U
142	Personnel Recovery Support System (PRSS)	A		9,382		4,625			3,721		U
143	Ground Soldier System	A		116,265		154,937					U
144	Mobile Soldier Power	A		29,364		34,297					U
145	Force Provider	A		64,400					56,400		U
146	Field Feeding Equipment			15,973					2,279		U
147	Cargo Aerial Del & Personnel Parachute System			44,662		53,021			2,040		U
148	Family Of Engr Combat and Construction Sets	A		11,451		23,324					U
149	Items Less Than \$5M (Eng Spt)	A		4,128		8,014					U
	Petroleum Equipment										
150	Distribution Systems, Petroleum & Water			84,527		78,448			4,374		U
	Medical Equipment										
151	Combat Support Medical			101,351		59,485			6,390		U

P-121PB: FY 2021 President's Budget (Published Version), as of January 15, 2020 at 14:57:48

UNCLASSIFIED

Department of the Army
 FY 2021 President's Budget
 Exhibit P-1 FY 2021 President's Budget
 Total Obligational Authority
 (Dollars in Thousands)

15 Jan 2020

Appropriation: 2035A Other Procurement, Army

Line No	Item Nomenclature	Ident Code	FY 2021 Total OCO		FY 2021 Total (Base + OCO)		S e c
			Quantity	Cost	Quantity	Cost	
135	Robotics and Applique Systems				179,544		U
136	Remote Demolition Systems	A					U
137	Render Safe Sets kits Outfits	A		84,000	148,583		U
138	< \$5M, Countermining Equipment	A					U
139	Family of Boats and Motors	A			5,289		U
	Combat Service Support Equipment						
140	Heaters and ECU's	A		370	8,570		U
141	Soldier Enhancement						U
142	Personnel Recovery Support System (PRSS)	A		3,721	8,346		U
143	Ground Soldier System	A			154,937		U
144	Mobile Soldier Power	A			34,297		U
145	Force Provider	A		56,400	56,400		U
146	Field Feeding Equipment			2,279	2,279		U
147	Cargo Aerial Del & Personnel Parachute System			2,040	55,061		U
148	Family Of Engr Combat and Construction Sets	A			23,324		U
149	Items Less Than \$5M (Eng Spt)	A			8,014		U
	Petroleum Equipment						
150	Distribution Systems, Petroleum & Water			4,374	82,822		U
	Medical Equipment						
151	Combat Support Medical			6,390	65,875		U

P-121PB: FY 2021 President's Budget (Published Version), as of January 15, 2020 at 14:57:48

UNCLASSIFIED

Page A-11B

xxxvi

UNCLASSIFIED

Department of the Army
 FY 2021 President's Budget
 Exhibit P-1 FY 2021 President's Budget
 Total Obligational Authority
 (Dollars in Thousands)

15 Jan 2020

Appropriation: 2035A Other Procurement, Army

Line No	Item Nomenclature	Ident Code	FY 2019 (Base + OCO)		FY 2020 Base Enacted		FY 2020 OCC Enacted		FY 2020 Emergency (Included in Base Enacted)		S e c
			Quantity	Cost	Quantity	Cost	Quantity	Cost	Quantity	Cost	
Maintenance Equipment											
152	Mobile Maintenance Equipment Systems	A		34,479		140,053					U
153	Items Less Than \$5.0M (Maint Eq)	A		5,253		5,608					U
Construction Equipment											
154	Grader, Road Mtzd, Hvy, 6X4 (CCE)	A									U
155	Scrapers, Earthmoving	A		8,061				3,910			U
156	Loaders							380			U
157	Hydraulic Excavator	B		5,226		500					U
158	Tractor, Full Tracked	A				4,835		8,225			U
159	All Terrain Cranes	A		13,031		23,003					U
160	High Mobility Engineer Excavator (HMEE)	A		71,748		27,188		3,000			U
161	Enhanced Rapid Airfield Construction Capap	B		8,480							U
162	Const Equip ESP			33,289		34,790		3,870			U
163	Items Less Than \$5.0M (Const Equip)	A		6,103		4,381		350			U
Rail Float Containerization Equipment											
164	Army Watercraft Esp	A		8,508		35,194					U
165	Maneuver Support Vessel (MSV)	B				14,185					U
166	Items Less Than \$5.0M (Float/Rail)	A		9,385		6,920					U
Generators											
167	Generators And Associated Equip	A		136,906		113,476		2,436			U

P-121PB: FY 2021 President's Budget (Published Version), as of January 15, 2020 at 14:57:48

UNCLASSIFIED

Department of the Army
 FY 2021 President's Budget
 Exhibit P-1 FY 2021 President's Budget
 Total Obligational Authority
 (Dollars in Thousands)

15 Jan 2020

Appropriation: 2035A Other Procurement, Army

Line No	Item Nomenclature	Ident Code	FY 2020 Total Enacted (Base + OCO)		FY 2021 Base		FY 2021 OCO for Base Requirements		FY 2021 OCO for Direct War and Enduring Costs		S e c
			Quantity	Cost	Quantity	Cost	Quantity	Cost	Quantity	Cost	
Maintenance Equipment											
152	Mobile Maintenance Equipment Systems	A		140,053		40,337				7,769	U
153	Items Less Than \$5.0M (Maint Eq)	A		5,608		5,386				184	U
Construction Equipment											
154	Grader, Road Mtzd, Hvy, 6X4 (CCE)	A				5,406					U
155	Scrapers, Earthmoving	A		3,910		4,188					U
156	Loaders			380		4,521				3,190	U
157	Hydraulic Excavator	B		500		5,186				7,600	U
158	Tractor, Full Tracked	A		13,060		4,715				7,450	U
159	All Terrain Cranes	A		23,003		70,560					U
160	High Mobility Engineer Excavator (HMEE)	A		30,188						3,703	U
161	Enhanced Rapid Airfield Construction Capap	B									U
162	Const Equip ESP			38,660		8,925				657	U
163	Items Less Than \$5.0M (Const Equip)	A		4,731							U
Rail Float Containerization Equipment											
164	Army Watercraft Esp	A		35,194		40,910					U
165	Maneuver Support Vessel (MSV)	B		14,185		76,576					U
166	Items Less Than \$5.0M (Float/Rail)	A		6,920		1,844					U
Generators											
167	Generators And Associated Equip	A		115,912		53,433				106	U

P-121PB: FY 2021 President's Budget (Published Version), as of January 15, 2020 at 14:57:48

UNCLASSIFIED

Department of the Army
 FY 2021 President's Budget
 Exhibit P-1 FY 2021 President's Budget
 Total Obligational Authority
 (Dollars in Thousands)

15 Jan 2020

Appropriation: 2035A Other Procurement, Army

Line No	Item Nomenclature	Ident Code	FY 2021 Total OCO		FY 2021 Total (Base + OCO)		S e c
			Quantity	Cost	Quantity	Cost	
Maintenance Equipment							
152	Mobile Maintenance Equipment Systems	A		7,769		48,106	U
153	Items Less Than \$5.0M (Maint Eq)	A		184		5,570	U
Construction Equipment							
154	Grader, Road Mtzd, Hvy, 6X4 (CCE)	A				5,406	U
155	Scrapers, Earthmoving	A				4,188	U
156	Loaders			3,190		7,711	U
157	Hydraulic Excavator	B		7,600		12,786	U
158	Tractor, Full Tracked	A		7,450		12,165	U
159	All Terrain Cranes	A				70,560	U
160	High Mobility Engineer Excavator (HMEE)	A		3,703		3,703	U
161	Enhanced Rapid Airfield Construction Capap	B					U
162	Const Equip ESP			657		9,582	U
163	Items Less Than \$5.0M (Const Equip)	A					U
Rail Float Containerization Equipment							
164	Army Watercraft Esp	A				40,910	U
165	Maneuver Support Vessel (MSV)	B				76,576	U
166	Items Less Than \$5.0M (Float/Rail)	A				1,844	U
Generators							
167	Generators And Associated Equip	A		106		53,539	U

P-121PB: FY 2021 President's Budget (Published Version), as of January 15, 2020 at 14:57:48

UNCLASSIFIED

Page A-12B

xxxix

UNCLASSIFIED

Department of the Army
 FY 2021 President's Budget
 Exhibit P-1 FY 2021 President's Budget
 Total Obligational Authority
 (Dollars in Thousands)

15 Jan 2020

Appropriation: 2035A Other Procurement, Army

Line No	Item Nomenclature	Ident Code	FY 2019 (Base + OCO)		FY 2020 Base Enacted		FY 2020 OCO Enacted		FY 2020 Emergency (Included in Base Enacted)		S e c
			Quantity	Cost	Quantity	Cost	Quantity	Cost	Quantity	Cost	
168	Tactical Electric Power Recapitalization Material Handling Equipment	A		8,333		14,814					U
169	Family Of Forklifts Training Equipment	A		12,901		13,864		5,152			U
170	Combat Training Centers Support			117,584		123,411					U
171	Training Devices, Nonsystem			217,597		213,347		2,106			U
172	Synthetic Training Environment (STE)					14,449					U
173	Close Combat Tactical Trainer	A		33,080							U
174	Aviation Combined Arms Tactical Trainer			32,700		4,840					U
175	Gaming Technology In Support of Army Training Test Measure and Dig Equipment (TMD)			25,161		15,463					U
176	Calibration Sets Equipment			4,270		3,030					U
177	Integrated Family Of Test Equipment (IFTE)			82,037		76,980		1,395			U
178	Test Equipment Modernization (TEMOD) Other Support Equipment			9,316		13,415					U
179	M25 STABILIZED BINOCULAR	A		4,368							U
180	Rapid Equipping Soldier Support Equipment	A		22,429		9,877		18,000			U
181	Physical Security Systems (OPA3)	A		53,836		78,958		10,016			U
182	Base Level Common Equipment			11,139		15,340					U
183	Modification Of In-Svc Equipment (OPA-3)			65,495		73,458		33,354			U

P-121PB: FY 2021 President's Budget (Published Version), as of January 15, 2020 at 14:57:48

UNCLASSIFIED

Department of the Army
 FY 2021 President's Budget
 Exhibit P-1 FY 2021 President's Budget
 Total Obligational Authority
 (Dollars in Thousands)

15 Jan 2020

Appropriation: 2035A Other Procurement, Army

Line No	Item Nomenclature	Ident Code	FY 2020 Total Enacted (Base + OCO)		FY 2021 Base		FY 2021 OCO for Base Requirements		FY 2021 OCO for Direct War and Enduring Costs		S e c
			Quantity	Cost	Quantity	Cost	Quantity	Cost	Quantity	Cost	
168	Tactical Electric Power Recapitalization	A		14,814		22,216					U
	Material Handling Equipment										
169	Family Of Forklifts	A		19,016		16,145				1,885	U
	Training Equipment										
170	Combat Training Centers Support			123,411		90,580					U
171	Training Devices, Nonsystem			215,453		161,814					U
172	Synthetic Training Environment (STE)			14,449		13,063					U
173	Close Combat Tactical Trainer	A									U
174	Aviation Combined Arms Tactical Trainer			4,840							U
175	Gaming Technology In Support of Army Training			15,463		1,950					U
	Test Measure and Dig Equipment (TMD)										
176	Calibration Sets Equipment			3,030		2,511					U
177	Integrated Family Of Test Equipment (IFTE)			78,375		78,578					U
178	Test Equipment Modernization (TEMOD)			13,415		14,941					U
	Other Support Equipment										
179	M25 STABILIZED BINOCULAR	A									U
180	Rapid Equipping Soldier Support Equipment	A		27,877		8,629				8,500	U
181	Physical Security Systems (OPA3)	A		88,974		75,499				3,248	U
182	Base Level Common Equipment			15,340		27,444					U
183	Modification Of In-Svc Equipment (OPA-3)			106,812		32,485					U

P-121PB: FY 2021 President's Budget (Published Version), as of January 15, 2020 at 14:57:48

UNCLASSIFIED

Department of the Army
 FY 2021 President's Budget
 Exhibit P-1 FY 2021 President's Budget
 Total Obligational Authority
 (Dollars in Thousands)

15 Jan 2020

Appropriation: 2035A Other Procurement, Army

Line No	Item Nomenclature	Ident Code	FY 2021 Total		FY 2021 Total		S e c
			Quantity	Cost	(Base + OCO) Quantity	Cost	
168	Tactical Electric Power Recapitalization Material Handling Equipment	A			22,216		U
169	Family Of Forklifts Training Equipment	A		1,885	18,030		U
170	Combat Training Centers Support				90,580		U
171	Training Devices, Nonsystem				161,814		U
172	Synthetic Training Environment (STE)				13,063		U
173	Close Combat Tactical Trainer	A					U
174	Aviation Combined Arms Tactical Trainer						U
175	Gaming Technology In Support of Army Training Test Measure and Dig Equipment (TMD)				1,950		U
176	Calibration Sets Equipment				2,511		U
177	Integrated Family Of Test Equipment (IFTE)				78,578		U
178	Test Equipment Modernization (TEMOD) Other Support Equipment				14,941		U
179	M25 STABILIZED BINOCULAR	A					U
180	Rapid Equipping Soldier Support Equipment	A		8,500	17,129		U
181	Physical Security Systems (OPA3)	A		3,248	78,747		U
182	Base Level Common Equipment				27,444		U
183	Modification Of In-Svc Equipment (OPA-3)				32,485		U

P-121PB: FY 2021 President's Budget (Published Version), as of January 15, 2020 at 14:57:48

UNCLASSIFIED

Department of the Army
 FY 2021 President's Budget
 Exhibit P-1 FY 2021 President's Budget
 Total Obligational Authority
 (Dollars in Thousands)

15 Jan 2020

Appropriation: 2035A Other Procurement, Army

Line No	Item Nomenclature	Ident Code	FY 2019 (Base + OCO)		FY 2020 Base Enacted		FY 2020 OCO Enacted		FY 2020 Emergency (Included in Base Enacted)		S e c
			Quantity	Cost	Quantity	Cost	Quantity	Cost	Quantity	Cost	
184	Production Base Support (OTH)			2,301							U
185	BUILDING, PRE-FAB, RELOCATABLE	A		6,000		32,700		77,054			U
186	Special Equipment For User Testing			11,605		9,821					U
187	Special Equipment for Test and Evaluation	B									U
188	TRACTOR YARD			4,956							U
Total Other Support Equipment				2,046,076		1,987,485		456,536			
Budget Activity 04: Spare and Repair Parts											
OPA2											
189	INITIAL SPARES - C&E			9,817		9,757					U
Total Spare and Repair Parts				9,817		9,757					
Total Other Procurement, Army				9,240,568		7,581,524		1,080,504			

UNCLASSIFIED

Department of the Army
 FY 2021 President's Budget
 Exhibit P-1 FY 2021 President's Budget
 Total Obligational Authority
 (Dollars in Thousands)

15 Jan 2020

Appropriation: 2035A Other Procurement, Army

Line No	Item Nomenclature	Ident Code	FY 2020 Total Enacted (Base + OCO)		FY 2021 Base		FY 2021 OCO for Base Requirements		FY 2021 OCO for Direct War and Enduring Costs		S e c
			Quantity	Cost	Quantity	Cost	Quantity	Cost	Quantity	Cost	
184	Production Base Support (OTH)										U
185	BUILDING, PRE-FAB, RELOCATABLE	A		109,754						31,845	U
186	Special Equipment For User Testing			9,821							U
187	Special Equipment for Test and Evaluation	B				39,436					U
188	TRACTOR YARD										U
Total Other Support Equipment				2,444,021		1,955,306				429,438	
Budget Activity 04: Spare and Repair Parts											

OPA2											
189	INITIAL SPARES - C&E			9,757		9,950					U
Total Spare and Repair Parts				9,757		9,950					
Total Other Procurement, Army				8,662,028		8,625,206				924,077	

UNCLASSIFIED

Department of the Army
 FY 2021 President's Budget
 Exhibit P-1 FY 2021 President's Budget
 Total Obligational Authority
 (Dollars in Thousands)

15 Jan 2020

Appropriation: 2035A Other Procurement, Army

Line No	Item Nomenclature	Ident Code	FY 2021		FY 2021		S e c
			Quantity	Cost	Quantity	Cost	
184	Production Base Support (OTH)						U
185	BUILDING, PRE-FAB, RELOCATABLE	A		31,845		31,845	U
186	Special Equipment For User Testing						U
187	Special Equipment for Test and Evaluation	B				39,436	U
188	TRACTOR YARD						U
Total Other Support Equipment				429,438		2,384,744	
Budget Activity 04: Spare and Repair Parts							
OPA2							
189	INITIAL SPARES - C&E					9,950	U
Total Spare and Repair Parts						9,950	
Total Other Procurement, Army				924,077		9,549,283	

UNCLASSIFIED

Army • Budget Estimates FY 2021 • Procurement

Line Item Table of Contents (by Appropriation then Line Number)

Appropriation 2035A: Other Procurement, Army

Line #	BA	BSA	Line Item Number	Line Item Title	Page
120	03	10	2205W01103	Protective Systems.....	1
121	03	10	2224M11205	Family Of Non-Lethal Equipment (FNLE).....	3
122	03	10	2300M90101	Base Defense Systems (BDS).....	18
123	03	10	4516M01001	CBRN Defense.....	31
124	03	10	6230MX0600	Smoke & Obscurant Family: SOF (Non AAO Item).....	60
125	03	15	2831MX0100	Tactical Bridging.....	68
126	03	15	3542MA8890	Tactical Bridge, Float-Ribbon.....	78
127	03	15	3758G06520	BRIDGE SUPPLEMENTAL SET.....	86
128	03	15	3974G07000	Common Bridge Transporter (CBT) Recap.....	94
129	03	20	2876R68200	Handheld Standoff Minefield Detection Sys-HSTAMIDS.....	102
130	03	20	2881R68400	Grnd Standoff Mine Detectn Systm (GSTAMIDS).....	107
131	03	20	2888R68260	AREA MINE DETECTION SYSTEM (AMDS).....	109
132	03	20	2889R64001	HUSKY MOUNTED DETECTION SYSTEM (HMDS).....	110
133	03	20	4865M80400	Robotic Combat Support System (RCSS).....	124
134	03	20	4867W12001	EOD Robotics Systems Recapitalization.....	126
135	03	20	4868W12002	Robotics and Applique Systems.....	136

UNCLASSIFIED

UNCLASSIFIED

Army • Budget Estimates FY 2021 • Procurement

Appropriation 2035A: Other Procurement, Army

Line #	BA	BSA	Line Item Number	Line Item Title	Page
136	03	20	5912M60001	Remote Demolition Systems.....	170
137	03	20	5913R63610	Render Safe Sets kits Outfits.....	171
138	03	20	5943MA7700	< \$5M, Countermine Equipment.....	179
139	03	20	8500R12001	Family of Boats and Motors.....	181
140	03	25	0100MF9000	Heaters and ECU's.....	195
141	03	25	8796MA6800	Soldier Enhancement.....	201
142	03	25	8822G01101	Personnel Recovery Support System (PRSS).....	202
143	03	25	8825R80501	Ground Soldier System.....	207
144	03	25	8827R80800	Mobile Soldier Power.....	212
145	03	25	8860M80200	Force Provider.....	224
146	03	25	9120M65800	Field Feeding Equipment.....	232
147	03	25	9140MA7804	Cargo Aerial Del & Personnel Parachute Systems.....	234
148	03	25	9462R70001	Family Of Engr Combat and Construction Sets.....	242
149	03	25	9530ML5301	Items Less Than \$5M (Eng Spt).....	274
150	03	30	4700MA6000	Distribution Systems, Petroleum & Water.....	280
151	03	40	7500MN1000	Combat Support Medical.....	316
152	03	45	0639G05301	Mobile Maintenance Equipment Systems.....	325
153	03	45	9562ML5345	Items Less Than \$5.0M (Maint Eq).....	350

UNCLASSIFIED

UNCLASSIFIED

Army • Budget Estimates FY 2021 • Procurement

Appropriation 2035A: Other Procurement, Army

Line #	BA	BSA	Line Item Number	Line Item Title	Page
154	03	50	0375R03800	Grader, Road Mtzd, Hvy, 6X4 (CCE).....	357
155	03	50	0822RA0100	Scrapers, Earthmoving.....	361
156	03	50	4100R04500	Loaders.....	363
157	03	50	4428X01500	Hydraulic Excavator.....	372
158	03	50	4700M05800	Tractor, Full Tracked.....	378
159	03	50	4734R06701	All Terrain Cranes.....	384
160	03	50	7495R05901	High Mobility Engineer Excavator (HMEE).....	389
161	03	50	9090R07001	Enhanced Rapid Airfield Construction Capap.....	391
162	03	50	9120M05500	Const Equip ESP.....	393
163	03	50	9462ML5350	Items Less Than \$5.0M (Const Equip).....	399
164	03	55	3569M11101	Army Watercraft Esp.....	401
165	03	55	8211R01001	Maneuver Support Vessel (MSV).....	409
166	03	55	9552ML5355	Items Less Than \$5.0M (Float/Rail).....	418
167	03	60	0426MA9800	Generators And Associated Equip.....	420
168	03	60	9012R42501	Tactical Electric Power Recapitalization.....	446
169	03	65	5558G41001	Family Of Forklifts.....	455
170	03	70	1780MA6600	Combat Training Centers Support.....	465
171	03	70	2062NA0100	Training Devices, Nonsystem.....	479

UNCLASSIFIED

UNCLASSIFIED

Army • Budget Estimates FY 2021 • Procurement

Appropriation 2035A: Other Procurement, Army

Line #	BA	BSA	Line Item Number	Line Item Title	Page
172	03	70	2079NA2000	Synthetic Training Environment (STE).....	521
173	03	70	6650NA0170	Close Combat Tactical Trainer.....	527
174	03	70	6800NA0173	Aviation Combined Arms Tactical Trainer.....	528
175	03	70	6860NA0176	Gaming Technology In Support of Army Training.....	530
176	03	80	0100N10000	Calibration Sets Equipment.....	532
177	03	80	0200MB4000	Integrated Family Of Test Equipment (IFTE).....	534
178	03	80	0600N11000	Test Equipment Modernization (TEMOD).....	548
179	03	90	0000M62550	M25 STABILIZED BINOCULAR.....	555
180	03	90	0017M80101	Rapid Equipping Soldier Support Equipment.....	556
181	03	90	0050MA0780	Physical Security Systems (OPA3).....	561
182	03	90	0312MB7000	Base Level Common Equipment.....	580
183	03	90	1110MA4500	Modification Of In-Svc Equipment (OPA-3).....	584
184	03	90	1220MA0450	Production Base Support (OTH).....	625
185	03	90	1500MA9160	BUILDING, PRE-FAB, RELOCATABLE.....	626
186	03	90	1572MA6700	Special Equipment For User Testing.....	628
187	03	90	1573MA6820	Special Equipment for Test and Evaluation.....	629
188	03	90	9219MA8975	TRACTOR YARD.....	639

UNCLASSIFIED

UNCLASSIFIED

Army • Budget Estimates FY 2021 • Procurement

Appropriation 2035A: Other Procurement, Army

Line #	BA	BSA	Line Item Number	Line Item Title	Page
189	04	20	0200BS9100	INITIAL SPARES - C&E.....	640

UNCLASSIFIED

UNCLASSIFIED

Army • Budget Estimates FY 2021 • Procurement

Line Item Table of Contents (Alphabetically by Line Item Title)

Line Item Title	Line Item Number	Line #	BA	BSA	Page
< \$5M, Countermine Equipment	5943MA7700	138	03	20.....	179
AREA MINE DETECTION SYSTEM (AMDS)	2888R68260	131	03	20.....	109
All Terrain Cranes	4734R06701	159	03	50.....	384
Army Watercraft Esp	3569M11101	164	03	55.....	401
Aviation Combined Arms Tactical Trainer	6800NA0173	174	03	70.....	528
BRIDGE SUPPLEMENTAL SET	3758G06520	127	03	15.....	86
BUILDING, PRE-FAB, RELOCATABLE	1500MA9160	185	03	90.....	626
Base Defense Systems (BDS)	2300M90101	122	03	10.....	18
Base Level Common Equipment	0312MB7000	182	03	90.....	580
CBRN Defense	4516M01001	123	03	10.....	31
Calibration Sets Equipment	0100N10000	176	03	80.....	532
Cargo Aerial Del & Personnel Parachute Systems	9140MA7804	147	03	25.....	234
Close Combat Tactical Trainer	6650NA0170	173	03	70.....	527
Combat Support Medical	7500MN1000	151	03	40.....	316
Combat Training Centers Support	1780MA6600	170	03	70.....	465
Common Bridge Transporter (CBT) Recap	3974G07000	128	03	15.....	94
Const Equip ESP	9120M05500	162	03	50.....	393

UNCLASSIFIED

UNCLASSIFIED

Army • Budget Estimates FY 2021 • Procurement

Line Item Title	Line Item Number	Line #	BA	BSA	Page
Distribution Systems, Petroleum & Water	4700MA6000	150	03	30.....	280
EOD Robotics Systems Recapitalization	4867W12001	134	03	20.....	126
Enhanced Rapid Airfield Construction Capap	9090R07001	161	03	50.....	391
Family Of Engr Combat and Construction Sets	9462R70001	148	03	25.....	242
Family Of Forklifts	5558G41001	169	03	65.....	455
Family Of Non-Lethal Equipment (FNLE)	2224M11205	121	03	10.....	3
Family of Boats and Motors	8500R12001	139	03	20.....	181
Field Feeding Equipment	9120M65800	146	03	25.....	232
Force Provider	8860M80200	145	03	25.....	224
Gaming Technology In Support of Army Training	6860NA0176	175	03	70.....	530
Generators And Associated Equip	0426MA9800	167	03	60.....	420
Grader, Road Mtzd, Hvy, 6X4 (CCE)	0375R03800	154	03	50.....	357
Grnd Standoff Mine Detectn Sysm (GSTAMIDS)	2881R68400	130	03	20.....	107
Ground Soldier System	8825R80501	143	03	25.....	207
HUSKY MOUNTED DETECTION SYSTEM (HMDS)	2889R64001	132	03	20.....	110
Handheld Standoff Minefield Detection Sys-HSTAMIDS	2876R68200	129	03	20.....	102
Heaters and ECU's	0100MF9000	140	03	25.....	195
High Mobility Engineer Excavator (HMEE)	7495R05901	160	03	50.....	389
Hydraulic Excavator	4428X01500	157	03	50.....	372
INITIAL SPARES - C&E	0200BS9100	189	04	20.....	640

UNCLASSIFIED

UNCLASSIFIED

Army • Budget Estimates FY 2021 • Procurement

Line Item Title	Line Item Number	Line #	BA	BSA	Page
Integrated Family Of Test Equipment (IFTE)	0200MB4000	177	03	80.....	534
Items Less Than \$5.0M (Const Equip)	9462ML5350	163	03	50.....	399
Items Less Than \$5.0M (Float/Rail)	9552ML5355	166	03	55.....	418
Items Less Than \$5.0M (Maint Eq)	9562ML5345	153	03	45.....	350
Items Less Than \$5M (Eng Spt)	9530ML5301	149	03	25.....	274
Loaders	4100R04500	156	03	50.....	363
M25 STABILIZED BINOCULAR	0000M62550	179	03	90.....	555
Maneuver Support Vessel (MSV)	8211R01001	165	03	55.....	409
Mobile Maintenance Equipment Systems	0639G05301	152	03	45.....	325
Mobile Soldier Power	8827R80800	144	03	25.....	212
Modification Of In-Svc Equipment (OPA-3)	1110MA4500	183	03	90.....	584
Personnel Recovery Support System (PRSS)	8822G01101	142	03	25.....	202
Physical Security Systems (OPA3)	0050MA0780	181	03	90.....	561
Production Base Support (OTH)	1220MA0450	184	03	90.....	625
Protective Systems	2205W01103	120	03	10.....	1
Rapid Equipping Soldier Support Equipment	0017M80101	180	03	90.....	556
Remote Demolition Systems	5912M60001	136	03	20.....	170
Render Safe Sets kits Outfits	5913R63610	137	03	20.....	171
Robotic Combat Support System (RCSS)	4865M80400	133	03	20.....	124
Robotics and Applique Systems	4868W12002	135	03	20.....	136

UNCLASSIFIED

UNCLASSIFIED

Army • Budget Estimates FY 2021 • Procurement

Line Item Title	Line Item Number	Line #	BA	BSA	Page
Scrapers, Earthmoving	0822RA0100	155	03	50.....	361
Smoke & Obscurant Family: SOF (Non AAO Item)	6230MX0600	124	03	10.....	60
Soldier Enhancement	8796MA6800	141	03	25.....	201
Special Equipment For User Testing	1572MA6700	186	03	90.....	628
Special Equipment for Test and Evaluation	1573MA6820	187	03	90.....	629
Synthetic Training Environment (STE)	2079NA2000	172	03	70.....	521
TRACTOR YARD	9219MA8975	188	03	90.....	639
Tactical Bridge, Float-Ribbon	3542MA8890	126	03	15.....	78
Tactical Bridging	2831MX0100	125	03	15.....	68
Tactical Electric Power Recapitalization	9012R42501	168	03	60.....	446
Test Equipment Modernization (TEMOD)	0600N11000	178	03	80.....	548
Tractor, Full Tracked	4700M05800	158	03	50.....	378
Training Devices, Nonsystem	2062NA0100	171	03	70.....	479

UNCLASSIFIED

UNCLASSIFIED

Army • Budget Estimates FY 2021 • Procurement
 Exhibit P-1M, Procurement Programs - Modification Summary
 (Listing by Model)

Lookup Matrix by Model

Model: -		
P-3a Individual Modifications		
Modification Number	Modification Title	Applies to Multiple Models
MA4501	MODIFICATION KITS	No
MA4502	INSTALLATION OF MODIFICATIONS	No

Model: Dry Support Bridge		
P-3a Individual Modifications		
Modification Number	Modification Title	Applies to Multiple Models
MA4504	TACTICAL BRIDGING MODIFICATIONS	No

Model: Explosive Ordnance Disposal Equipment		
Modification P-40a Aggregated Items Title: R01121 / EOD MODIFICATION OF IN-SVC EQUIPMENT		
Item Number	Item Title	Applies to Multiple Models
EOD MODIFICATION OF IN-SVC EQUIPMENT		
R01121	EOD MODIFICATION OF IN-SVC EQUIPMENT	No

UNCLASSIFIED

UNCLASSIFIED

Army • Budget Estimates FY 2021 • Procurement
 Exhibit P-1M, Procurement Programs - Modification Summary
 (Funding for Modifications)

Funding (\$ M)

Modification P-40a Item Title P-3a Modification Title	PYS	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
Exhibit P-40a										
EOD MODIFICATION OF IN-SVC EQUIPMENT	9.761	34.578	29.120	-	-	-	-	-	-	-
Exhibit P-3a										
MODIFICATION KITS	928.742	15.693	48.821	19.386	-	19.386	19.819	21.331	7.385	10.849
INSTALLATION OF MODIFICATIONS	261.056	12.306	18.438	5.251	-	5.251	4.506	4.718	4.584	4.633
TACTICAL BRIDGING MODIFICATIONS	64.684	2.918	10.433	7.848	-	7.848	2.208	5.321	6.749	-
Totals (Total Obligation Authority)										
Total Obligation Authority	1,264.243	65.495	106.812	32.485	0.000	32.485	26.533	31.370	18.718	15.482

UNCLASSIFIED

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 10: Chemical Defensive Equipment	P-1 Line Item Number / Title: 2205W01103 / Protective Systems
----------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-------------------------------------------------------------------------

ID Code (A=Service Ready, B=Not Service Ready):	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
--------------------------------------------------------	-----------------------------------------------	--------------------------------------------

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity <i>(Units in Each)</i>	18,771	7,215	-	-	-	-	-	-	-	-	-	25,986
Gross/Weapon System Cost <i>(\$ in Millions)</i>	4.862	2.341	-	-	-	-	-	-	-	-	-	7.203
Less PY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) <i>(\$ in Millions)</i>	4.862	2.341	-	-	-	-	-	-	-	-	-	7.203
Plus CY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority <i>(\$ in Millions)</i>	4.862	2.341	-	-	-	-	-	-	-	-	-	7.203

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost <i>(\$ in Thousands)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost <i>(\$ in Thousands)</i>	0.259	0.324	-	-	-	-	-	-	-	-	-	0.277

Description:

Protective systems includes Kits for evidence Collection and Detainee Processing (KECDP). The KECDP consists of four (4) kits that support Military Police (MP) and Criminal Investigative Division (CID) elements, providing equipment to restrain detainees, compile accurate documentation at a crime scene, and collect evidence. This standardized collection of evidence and information will lead to successful prosecution of high value targets that are guilty or the release of those deemed innocent. The KECDP will aid in eliminating improperly attained or mishandled processing of evidence found at the point of capture and eliminate the release of persons who would continue to engage in insurgent activities leading to injury and death of U.S. and Coalition Forces. KECDP Estimated Army Acquisition Objective (AAO): Individual Point of Capture Kit (IPOCK) 15,170; Leader Point of Capture Kit (LPOCK) 4,995; Team Evidence Collection Kit (TECK) 1,665; Platoon Evidence Collection Kit (PECK) 1,815.

Individual Point of Capture Kit (IPOCK) 145 will be used towards PACOM OCO effort.

Law Enforcement Ensemble Kit (LEEK) - consists of the following: Duty Belt, Belt Keeper, Pouch Handcuff, Surgical Glove Pouch and Flashlight Holder to be used by Military Law Enforcement personnel. LEEK funding will be moved to APE 115020000.

FY13-17 BAIS funding has been moved to Base Defense Systems (M90202).

Secondary Distribution	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
Army	Quantity	155	-	-	-	-	-	-	-
	Total Obligation Authority	0.658	-	-	-	-	-	-	-
ANG	Quantity	5,572	-	-	-	-	-	-	-
	Total Obligation Authority	1.252	-	-	-	-	-	-	-
AR	Quantity	1,488	-	-	-	-	-	-	-
	Total Obligation Authority	0.431	-	-	-	-	-	-	-
Total:	Quantity	7,215	-	-	-	-	-	-	-

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 10: Chemical Defensive Equipment	P-1 Line Item Number / Title: 2205W01103 / Protective Systems
----------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-------------------------------------------------------------------------

ID Code (A=Service Ready, B=Not Service Ready):	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
--------------------------------------------------------	-----------------------------------------------	--------------------------------------------

Line Item MDAP/MAIS Code: N/A

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
Secondary Distribution	Total Obligation Authority	2.341	-	-	-	-	-	-	-	-

Justification:
 There is no FY21 funding request.

In accordance with Section 1815 of the FY 2008 National Defense Authorization Act (P.L. 110-181), these items are necessary for use by the active and reserve components of the Armed Forces for homeland defense missions, domestic emergency responses, and providing military support to civil authorities.

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 10: Chemical Defensive Equipment	P-1 Line Item Number / Title: 2224M11205 / Family Of Non-Lethal Equipment (FNLE)
----------------------------------------------------------------------------------------------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------------

ID Code (A=Service Ready, B=Not Service Ready):	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
--------------------------------------------------------	-----------------------------------------------	--------------------------------------------

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	678	945	519	-	392	392	-	-	-	-	-	2,534
Gross/Weapon System Cost (<i>\$ in Millions</i>)	31.935	33.972	28.480	-	25.480	25.480	-	-	-	-	-	119.867
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	31.935	33.972	28.480	-	25.480	25.480	-	-	-	-	-	119.867
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	31.935	33.972	28.480	-	25.480	25.480	-	-	-	-	-	119.867

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Thousands</i>)	47.102	35.949	54.875	-	65.000	65.000	-	-	-	-	-	47.303

Description:

This line contains Non-Lethal Equipment, All Types.

M11309 The Acoustic Hailing Device (AHD) is a non-kinetic, long range hailing and warning device capable of producing highly directional sound beams to project warning tones and intelligible voice commands to distances of at least 300 meters with background noise present at the target's location. AHD is an enabler for Soldier Lethality by allowing units to quickly determine intent and control actions of potentially hostile personnel, as an escalation of force measure, making operational forces more efficient and lethal. AHD can also be an enabler for the Next Gen Combat Vehicle modernization priority as a means of protecting the host vehicle from personnel with the intent to damage the vehicle and its associated equipment (i.e., sensors and/or personnel). AHDs will support Military Police (MP), Transportation, and Psychological Operations (PSYOP) units and is used in both Combat operations and Homeland Defense. This item is Code A, approved for service use.

M11206 Single Net Solution with Remote Deployment Device (SNS-RDD) system is a wheeled vehicle stopping system. The SNS-RDD will increase soldier survivability by allowing units to quickly and remotely employ a Soldier-emplaced vehicle stopping capability to enable Force Protection (FP) and enhance the security of personnel and materiel by allowing alternatives to lethal force. The RDD is capable of deploying a SNS in five seconds. The SNS is a single use net with spikes designed to meet a capability gap of hastily stopping wheeled vehicles up to 22,000 pounds traveling up to 30 miles per hour within 200 feet. These systems are can be quickly employed to stop a vehicle without resorting to lethal force. The system can be emplaced anywhere and does not require altering the road surface or installation of a permanent apparatus. Essential for megacity and other urban operations for increased physical protection measures. A complete SNS-RDD system includes (1) RDD and (2) SNS. This item will be Code A after Full Material Release in 2QFY21.

Secondary Distribution	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
Army	Quantity	695	519	-	392	392	-	-	-
	Total Obligation Authority	25.822	28.480	-	25.480	25.480	-	-	-
ANG	Quantity	169	-	-	-	-	-	-	-
	Total Obligation Authority	5.282	-	-	-	-	-	-	-
AR	Quantity	81	-	-	-	-	-	-	-

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 10: Chemical Defensive Equipment	P-1 Line Item Number / Title: 2224M11205 / Family Of Non-Lethal Equipment (FNLE)
----------------------------------------------------------------------------------------------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------------

ID Code (A=Service Ready, B=Not Service Ready):	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
--------------------------------------------------------	-----------------------------------------------	--------------------------------------------

Line Item MDAP/MAIS Code: N/A

	Secondary Distribution	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
	Total Obligation Authority	2.868	-	-	-	-	-	-	-	-
Total:	Quantity	945	519	-	392	392	-	-	-	-
Secondary Distribution	Total Obligation Authority	33.972	28.480	-	25.480	25.480	-	-	-	-

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity:
2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 10: Chemical Defensive Equipment

P-1 Line Item Number / Title:
2224M11205 / Family Of Non-Lethal Equipment (FNLE)

ID Code (A=Service Ready, B=Not Service Ready): **Program Elements for Code B Items:** N/A **Other Related Program Elements:** N/A

Line Item MDAP/MAIS Code: N/A

Exhibits Schedule					Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-5	M11206 / REMOTE DEPLOYED DEVICE (RDD)	P-5a, P-21	A		40 / 3.063	71 / 8.651	123 / 9.280	- / -	92 / 9.280	92 / 9.280
P-5	M11309 / ACOUSTIC HAILING DEVICE (AHD)	P-5a, P-21	A		638 / 28.872	874 / 25.321	396 / 19.200	- / -	300 / 16.200	300 / 16.200
P-40	Total Gross/Weapon System Cost				678 / 31.935	945 / 33.972	519 / 28.480	- / -	392 / 25.480	392 / 25.480

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

Justification:

In accordance with Section 1815 of the FY 2008 National Defense Authorization Act (P.L. 110-181), this item is necessary for use by the active and reserve components of the Armed Forces for homeland defense missions, domestic emergency responses, and providing military support to civil authorities.

FY 2021 Total Overseas Contingency Operations (OCO) dollars in the amount of \$25.480 million supports the procurement of two variants of Non-Lethal Equipment in support of Operation Inherent Resolve for ISIL.

M11309 Acoustic Hailing Device (AHD):

FY 2021 Total Overseas Contingency Operations (OCO) procurement dollars in the amount of \$16.200 million supports the procurement of 300 AHDs. Funding also supports Fielding and New Equipment Training (NET).

M11206 Single Net Solution with Remote Deployment Device (SNS-RDD):

FY 2021 Total Overseas Contingency Operations (OCO) procurement dollars in the amount of \$9.280 million supports the procurement of 92 SNS-RDDs (92 RDD and 184 SNS). Funding also supports Fielding and New Equipment Training (NET).

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army													Date: February 2020								
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 10						P-1 Line Item Number / Title: 2224M11205 / Family Of Non-Lethal Equipment (FNLE)						Item Number / Title [DODIC]: M11206 / REMOTE DEPLOYED DEVICE (RDD)									
ID Code (A=Service Ready, B=Not Service Ready) : A									MDAP/MAIS Code:												
Resource Summary				Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
Procurement Quantity (Units in Each)				40			71			123			-			92			92		
Gross/Weapon System Cost (\$ in Millions)				3.063			8.651			9.280			-			9.280			9.280		
Less PY Advance Procurement (\$ in Millions)				-			-			-			-			-			-		
Net Procurement (P-1) (\$ in Millions)				3.063			8.651			9.280			-			9.280			9.280		
Plus CY Advance Procurement (\$ in Millions)				-			-			-			-			-			-		
Total Obligation Authority (\$ in Millions)				3.063			8.651			9.280			-			9.280			9.280		
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>																					
Initial Spares (\$ in Millions)				-			-			-			-			-			-		
Gross/Weapon System Unit Cost (\$ in Thousands)				76.575			121.845			75.447			-			100.870			100.870		
Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.																					
Cost Elements		Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total				
		Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)		
Hardware Cost																					
Recurring Cost																					
Remote Deployed Device (RDD) ^(†)		88.636	22	1.950	90.000	66	5.940	85.000	94	7.990	-	-	-	85.000	92	7.820	85.000	92	7.820		
Subtotal: Recurring Cost		-	-	1.950	-	-	5.940	-	-	7.990	-	-	-	-	-	7.820	-	-	7.820		
Subtotal: Hardware Cost		-	-	1.950	-	-	5.940	-	-	7.990	-	-	-	-	-	7.820	-	-	7.820		
Logistics Cost																					
Non Recurring Cost																					
Fielding & NET		-	-	0.195	-	-	0.300	-	-	0.290	-	-	-	-	-	0.360	-	-	0.360		
Subtotal: Non Recurring Cost		-	-	0.195	-	-	0.300	-	-	0.290	-	-	-	-	0.360	-	-	0.360			
Subtotal: Logistics Cost		-	-	0.195	-	-	0.300	-	-	0.290	-	-	-	-	0.360	-	-	0.360			
Support - Production Engineering Cost																					
Production Engineering		-	-	0.918	-	-	2.411	-	-	1.000	-	-	-	-	1.100	-	-	1.100			
Subtotal: Support - Production Engineering Cost		-	-	0.918	-	-	2.411	-	-	1.000	-	-	-	-	1.100	-	-	1.100			
Gross/Weapon System Cost		76.575	40	3.063	121.845	71	8.651	75.447	123	9.280	-	-	-	100.870	92	9.280	100.870	92	9.280		
Secondary Distribution				FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total					
Army		Quantity		38			123			-			92			92					

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 10	P-1 Line Item Number / Title: 2224M11205 / Family Of Non-Lethal Equipment (FNLE)	Item Number / Title [DODIC]: M11206 / REMOTE DEPLOYED DEVICE (RDD)

ID Code (A=Service Ready, B=Not Service Ready) : A	MDAP/MAIS Code:
-----------------------------------------------------------	------------------------

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
	Total Obligation Authority	8.137	9.280	-	9.280	9.280
ANG	Quantity	33	-	-	-	-
	Total Obligation Authority	0.514	-	-	-	-
Total:	Quantity	71	123	-	92	92
Secondary Distribution	Total Obligation Authority	8.651	9.280	-	9.280	9.280

(t) indicates the presence of a P-5a

UNCLASSIFIED

Exhibit P-5a, Procurement History and Planning: PB 2021 Army								Date: February 2020				
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 10			P-1 Line Item Number / Title: 2224M11205 / Family Of Non-Lethal Equipment (FNLE)					Item Number / Title [DODIC]: M11206 / REMOTE DEPLOYED DEVICE (RDD)				
Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty (Each)	Unit Cost (\$ K)	Specs Avail Now?	Date Revision Available	RFP Issue Date
Remote Deployed Device (RDD) ^(†)		2019	Pacific Scientific Energetic Materials Company (PacSci EMC) / Chandler, AZ	MIPR	Picatinny Arsenal, NJ	Aug 2019	Dec 2019	66	90.000	Y		
Remote Deployed Device (RDD) ^(†)		2020	Pacific Scientific Energetic Materials Company (PacSci EMC) / Chandler, AZ	MIPR	Picatinny Arsenal, NJ	Mar 2020	Jul 2020	94	85.000	Y		
Remote Deployed Device (RDD) ^(†)	✓	2021	Pacific Scientific Energetic Materials Company (PacSci EMC) / Chandler, AZ	MIPR	Picatinny Arsenal, NJ	Mar 2021	Jul 2021	92	85.000	Y		

^(†) indicates the presence of a P-21

UNCLASSIFIED

Exhibit P-21, Production Schedule: PB 2021 Army															Date: February 2020														
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 10										P-1 Line Item Number / Title: 2224M11205 / Family Of Non-Lethal Equipment (FNLE)										Item Number / Title [DODIC]: M11206 / REMOTE DEPLOYED DEVICE (RDD)									

Cost Elements <i>(Units in Each)</i>						Fiscal Year 2021												Fiscal Year 2022												BALANCE	
O C C #	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2020	BAL DUE AS OF 1 OCT	Calendar Year 2021												Calendar Year 2022												
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G		S E P
Remote Deployed Device (RDD)																															
Prior Years Deliveries: 22																															
	1	2019	ARMY	66	66	0																							0		
	1	2020	ARMY	94	94	0																							0		
✓	1	2021	ARMY	92	0	92																							0		

UNCLASSIFIED

Exhibit P-21, Production Schedule: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 10		P-1 Line Item Number / Title: 2224M11205 / Family Of Non-Lethal Equipment (FNLE)
		Item Number / Title [DODIC]: M11206 / REMOTE DEPLOYED DEVICE (RDD)

MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Month)			Procurement Leadtime (Months)							
		MSR For 2021	1-8-5 For 2021	MAX For 2021	Initial				Reorder			
					ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1	ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1
1	Pacific Scientific Energetic Materials Company (PacSci EMC) - Chandler, AZ	10	125	200	15	15	4	19	15	6	4	10

"A" in the Delivery Schedule indicates the Contract Award Date.

Note: Due to space limitations, quantities in the Exhibit P-21 delivery calendar are truncated and rounded based on the maximum quantity in the calendar as follows. If the maximum quantity is less than or equal to than 9,999, all quantities are shown as each. If the maximum quantity is between 10,000 and 999,999 all quantities are shown in thousands. If the maximum quantity is between 1,000,000 and 999,999,999 all quantities are shown in millions (rounded to the nearest thousand). If the maximum quantity is equal or greater than 1,000,000,000 all quantities are shown in billions (rounded to the nearest million).

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 10	P-1 Line Item Number / Title: 2224M11205 / Family Of Non-Lethal Equipment (FNLE)	Item Number / Title [DODIC]: M11309 / ACOUSTIC HAILING DEVICE (AHD)

ID Code (A=Service Ready, B=Not Service Ready) : A	MDAP/MAIS Code:
-----------------------------------------------------------	------------------------

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Procurement Quantity (Units in Each)	638	874	396	-	300	300
Gross/Weapon System Cost (\$ in Millions)	28.872	25.321	19.200	-	16.200	16.200
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	28.872	25.321	19.200	-	16.200	16.200
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	28.872	25.321	19.200	-	16.200	16.200

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (\$ in Millions)	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Thousands)	45.254	28.971	48.485	-	54.000	54.000

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
Hardware Cost																		
Recurring Cost																		
Acoustic Hailing Device System ^(†)	28.413	641	18.213	30.859	722	22.280	32.000	362	11.584	-	-	-	33.333	300	10.000	33.333	300	10.000
Subtotal: Recurring Cost	-	-	18.213	-	-	22.280	-	-	11.584	-	-	-	-	-	10.000	-	-	10.000
Subtotal: Hardware Cost	-	-	18.213	-	-	22.280	-	-	11.584	-	-	-	-	-	10.000	-	-	10.000
Logistics Cost																		
Non Recurring Cost																		
Fielding and NET	-	-	1.405	-	-	0.624	-	-	1.871	-	-	-	-	-	1.700	-	-	1.700
Subtotal: Non Recurring Cost	-	-	1.405	-	-	0.624	-	-	1.871	-	-	-	-	-	1.700	-	-	1.700
Subtotal: Logistics Cost	-	-	1.405	-	-	0.624	-	-	1.871	-	-	-	-	-	1.700	-	-	1.700
Support - Production Engineering Cost																		
Production Engineering	-	-	9.254	-	-	2.417	-	-	5.745	-	-	-	-	-	4.500	-	-	4.500
Subtotal: Support - Production Engineering Cost	-	-	9.254	-	-	2.417	-	-	5.745	-	-	-	-	-	4.500	-	-	4.500
Gross/Weapon System Cost	45.254	638	28.872	28.971	874	25.321	48.485	396	19.200	-	-	-	54.000	300	16.200	54.000	300	16.200

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Army	Quantity	657	396	-	300	300

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 10	P-1 Line Item Number / Title: 2224M11205 / Family Of Non-Lethal Equipment (FNLE)	Item Number / Title [DODIC]: M11309 / ACOUSTIC HAILING DEVICE (AHD)

ID Code (A=Service Ready, B=Not Service Ready) : A **MDAP/MAIS Code:**

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
	Total Obligation Authority	17.685	19.200	-	16.200	16.200
ANG	Quantity	136	-	-	-	-
	Total Obligation Authority	4.768	-	-	-	-
AR	Quantity	81	-	-	-	-
	Total Obligation Authority	2.868	-	-	-	-
Total:	Quantity	874	396	-	300	300
Secondary Distribution	Total Obligation Authority	25.321	19.200	-	16.200	16.200

(t) indicates the presence of a P-5a

UNCLASSIFIED

Exhibit P-5a, Procurement History and Planning: PB 2021 Army							Date: February 2020					
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 10			P-1 Line Item Number / Title: 2224M11205 / Family Of Non-Lethal Equipment (FNLE)				Item Number / Title [DODIC]: M11309 / ACOUSTIC HAILING DEVICE (AHD)					

Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty (Each)	Unit Cost (\$ K)	Specs Avail Now?	Date Revision Available	RFP Issue Date
Acoustic Hailing Device System ^(†)		2019	LRAD Corporation / San Diego, CA	MIPR	Crane, IN	Aug 2019	Jan 2020	722	30.859	Y		
Acoustic Hailing Device System ^(†)		2020	LRAD Corporation / San Diego, CA	MIPR	Crane, IN	Mar 2020	Aug 2020	362	32.000	Y		
Acoustic Hailing Device System ^(†)	✓	2021	LRAD Corporation / San Diego, CA	MIPR	Crane, IN	Mar 2021	Aug 2021	300	33.333	Y		

^(†) indicates the presence of a P-21

UNCLASSIFIED

Exhibit P-21, Production Schedule: PB 2021 Army															Date: February 2020														
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 10										P-1 Line Item Number / Title: 2224M11205 / Family Of Non-Lethal Equipment (FNLE)										Item Number / Title [DODIC]: M11309 / ACOUSTIC HAILING DEVICE (AHD)									

Cost Elements <i>(Units in Each)</i>					Fiscal Year 2021															Fiscal Year 2022															BALANCE		
O C C #	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2020	BAL DUE AS OF 1 OCT	Calendar Year 2021															Calendar Year 2022															
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P							
Acoustic Hailing Device System																																					
Prior Years Deliveries: 641																																					
	1	2019	ARMY	722	590	132	65	67																										0			
	1	2020	ARMY	362	131	231	35	35	35	35	35	35	21																					0			
✓	1	2021	ARMY	300	0	300																											0				
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P							

UNCLASSIFIED

Exhibit P-21, Production Schedule: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 10		P-1 Line Item Number / Title: 2224M11205 / Family Of Non-Lethal Equipment (FNLE)
		Item Number / Title [DODIC]: M11309 / ACOUSTIC HAILING DEVICE (AHD)

MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Month)			Procurement Leadtime (Months)							
		MSR For 2021	1-8-5 For 2021	MAX For 2021	Initial				Reorder			
					ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1	ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1
1	LRAD Corporation - San Diego, CA	10	125	200	8	6	5	11	8	6	5	11

"A" in the Delivery Schedule indicates the Contract Award Date.

Note: Due to space limitations, quantities in the Exhibit P-21 delivery calendar are truncated and rounded based on the maximum quantity in the calendar as follows. If the maximum quantity is less than or equal to than 9,999, all quantities are shown as each. If the maximum quantity is between 10,000 and 999,999 all quantities are shown in thousands. If the maximum quantity is between 1,000,000 and 999,999,999 all quantities are shown in millions (rounded to the nearest thousand). If the maximum quantity is equal or greater than 1,000,000,000 all quantities are shown in billions (rounded to the nearest million).

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 10: Chemical Defensive Equipment	P-1 Line Item Number / Title: 2300M90101 / Base Defense Systems (BDS)
----------------------------------------------------------------------------------------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------

ID Code (A=Service Ready, B=Not Service Ready):	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
--------------------------------------------------------	-----------------------------------------------	--------------------------------------------

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	35.900	39.200	39.984	-	98.960	98.960	7.469	-	-	23.496	-	245.009
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	35.900	39.200	39.984	-	98.960	98.960	7.469	-	-	23.496	-	245.009
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	35.900	39.200	39.984	-	98.960	98.960	7.469	-	-	23.496	-	245.009

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

Base Defense Systems (BDS) includes Battlefield Anti-Intrusion System (BAIS) (M90202), Lighting Kit Motion Detection (LKMD) (M90204), Integrated Ground Security, Surveillance and Response Capability (IGSSR-C) (M90106), Tactical Security System (TSS) (M90220), Integrated Base Defense (IBD) Kitting (M90115 - includes Counter Vehicle Borne Improvised Explosive Device (CVBIED) and Kandahar Air Field (KAF) Force Protection), and Non-Intrusive Inspection Systems (NIIS) (M90108).

The IGSSR-C is a Joint Requirement that provides a layered approach to integrate sensors, sensor systems and unmanned systems with automated fusion capabilities to create an in-depth security, surveillance and response Force Protection (FP) COP capability for CONUS fixed, OCONUS semi-fixed or expeditionary elements in all Operating Environments (OE). This capability will enable rapid decision analysis, speed the response process as well as increase information dissemination horizontally and vertically along the chain of command and with outside supporting organizations. IGSSR-C is a software centric fusion engine that connects legacy and emerging FP systems, legacy Chemical, Biological, Radiological, Nuclear, and Explosive (CBRNE), unmanned systems, biometric identification and forensic data systems. The desired end state is to achieve interoperability with current and emerging FP systems used by Joint Forces, Department of Defense (DoD) agencies and multi-national forces. This is a new start for FY21 OPA.

Ground-Based Operational Surveillance System (Expeditionary) (GBOSS-E) will replace the interim Persistent Surveillance System-Ground (PSS-G) Increment 1 towers with improved persistent surveillance capabilities and will provide network integration and better mobility utilizing modular configurations. GBOSS-E will replace obsolete, quick reaction capability (QRC) surveillance and force protections systems utilizing modular configurations: Light (man transportable/detachable) for extra small base camps or small outpost/company, Medium variant (mid sensor height) for small to medium size base, and Heavy variant (high level sensor height) for large contingency base camps. GBOSS-E will operate in a stand-alone mode or as part of an integrated network utilizing government owned software, be easily operated and maintained, and be rugged enough to support employment in expeditionary operations worldwide.

The Tactical Security System (TSS) provides a modular, scalable, lightweight, rapidly deployable, ground based security and surveillance Family of Systems designed for hasty emplacement to support short and long term security, surveillance and detection missions. The system will be tailorable to support various missions including internment/resettlement operations; perimeter security; internal security within base camps or installations; external security outside the perimeter and route clearance. TSS will be employed at fixed, semi-fixed or expeditionary sites providing all weather imaging during daylight/twilight and during periods of limited visibility regardless of environmental conditions to enhance the Commander's situational awareness and increase Soldier survivability. TSS is designed to be employed as a stand-alone, in a layered effort or integrated with additional force protection systems including motion, acoustic, seismic, surface and subterranean detection technologies. TSS will address four of the five base camp core protection/security capabilities identified in the IBD Concept of Operations including perimeter security, entry control, persistent surveillance and warning and alerting. TSS can be employed in support of contingency, short-notice, early-entry operations in a variety of weather and terrain from open desert to complex urban environments. TSS will assist in countering individuals and provide clandestine observation

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 10: Chemical Defensive Equipment	P-1 Line Item Number / Title: 2300M90101 / Base Defense Systems (BDS)
----------------------------------------------------------------------------------------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------

ID Code (A=Service Ready, B=Not Service Ready):	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
--------------------------------------------------------	-----------------------------------------------	--------------------------------------------

Line Item MDAP/MAIS Code: N/A

of detainees, individuals, either on foot or in vehicles from intruding into areas designated for security purposes. TSS will allow the Commander to detect and observe enemy or adversarial forces from a distance prior to entering the base area of operations. This advanced warning will allow the Commander to better deploy forces in a more effective manner to mitigate threat. This is a new start for FY21 OPA.

Integrated Base Defense (IBD) Kitting , which includes CVBIED and KAF Force Protection (FP) Modernization is an integrated suite of systems developed in response to CENTCOM JUONS CC-0540. CVBIED provides an early VBIED detection capability prior to vehicles reaching entry into Forward Operating Bases. Counter Vehicle Borne Improvised Explosive Device equipment includes passive cargo inspection technologies, wide area motion imaging sensors, stand-off bulk and trace explosive detection sensors, enhanced optical vehicle inspections systems and other vehicle inspection equipment. Additional sensor systems will be procured and integrated into the current Force Protection (FP) infrastructure as part of CVBIED.

NIIS is a family of systems that inspects for the presence of explosives, weapons and other contraband in vehicles, cargo containers and personnel from a distance providing stand-off ballistic and blast protection. All systems are either mobile or fully re-locatable. It is a force multiplier that maximizes protection of personnel, equipment and installations while minimizing manpower requirements. NIIS provides the capability to non-intrusively inspect vehicles, cargo containers and personnel for the presence of explosives, weapons or other contraband which can kill or injure Soldiers and destroy critical warfighting materiel. NIIS supports the urgent need for Counter-Improvised Explosive Device equipment to support military operations.

The purpose of IBD Kitting is to harvest and refurbish physical security and force protection Non-Standard Equipment and package them into integrated and interoperable IBD capabilities. IBD packages support expeditionary ground operations and provide a bridge to the enduring IBD capability. IBD kits are integrated into a System of Systems (SoS) to provide an interim IBD capability to increase protective effectiveness, enhance situational awareness and reduce troop-to-task requirements.

In accordance with Section 1815 of the FY 2008 National Defense Authorization Act (P.L. 110-181), this item is necessary for use by the active and reserve components of the Armed Forces for homeland defense missions, domestic emergency responses, and providing military support to civil authorities.

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
Army	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	39.200	39.984	-	98.960	98.960	7.469	-	-	23.496
Total: Secondary Distribution	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	39.200	39.984	-	98.960	98.960	7.469	-	-	23.496

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity:
2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 10: Chemical Defensive Equipment

P-1 Line Item Number / Title:
2300M90101 / Base Defense Systems (BDS)

ID Code (A=Service Ready, B=Not Service Ready): **Program Elements for Code B Items:** N/A **Other Related Program Elements:** N/A

Line Item MDAP/MAIS Code: N/A

Exhibits Schedule					Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-5	M90106 / IntegGrdSecSurvRespC (IGSSR-C)	P-5a			- / -	- / -	- / -	- / -	- / 7.287	- / 7.287
P-40a	M90108 / NON-INTRUSIVE INSPECTION SYSTEMS (NIIS)				- / 8.868	- / -	- / -	- / -	- / 12.900	- / 12.900
P-5	M90115 / INTEG BASE DEF NONSTAND EQUIP (IBD NS-E) KITTING	P-5a			- / 27.032	- / 39.200	- / 39.984	- / -	- / 64.584	- / 64.584
P-5	M90220 / TACTICAL SECURITY SYSTEM (TSS)	P-5a			- / -	- / -	- / -	- / -	- / 14.189	- / 14.189
P-40	Total Gross/Weapon System Cost				- / 35.900	- / 39.200	- / 39.984	- / -	- / 98.960	- / 98.960

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

Justification:
 FY 2021 M90106 / IntegGrdSecSurvRespC (IGSSR-C) OCO funding in the amount of \$7.287 million supports the procurement and fielding of four systems, initial fielding support, training and program management. This will provide a layered approach to integrate sensors, sensor systems, and unmanned systems with automated fusion capabilities. Fielding is intended for Army Pre-position Stock (APS) with the intent to immediately deploy to ongoing OCONUS operation. This is a new start for FY21 OPA.

FY 2021 M90108 / NON-INSTRUSIVE INSPECTION SYSTEMS (NIIS) - OCO funding in the amount of \$12.900 million will procure NIIS enhanced force protection equipment to replace obsolete systems at multiple locations to enhance perimeter security and provide adequate inspection capabilities at Entry Control Point locations.

FY 2021 M90115 / INTE BASE DEF NONSTAND EQUIP (IBD NS-E) - OCO funding in the amount of \$64.584 million supports JUONS CC-0540 (\$47.581 million) and KAF Force Protection Modernization (\$17.003 million). OCO funding in the amount of \$47.581 million for JUONS CC-0540 will procure passive and non-intrusive cargo inspection component systems, wide-area motion imaging sensors, stand-off bulk and trace explosive detection sensors, enhanced automatic vehicle inspection systems, other ancillary vehicle inspection equipment, and all required integration and support equipment necessary to field the systems that address the JUONS CC-0540 capability gaps. OCO funding in the amount of \$17.003 million for KAF Force Protection Modernization will procure equipment comprised of material required to control and operate an entry control point; equipment to control and operate a base expeditionary targeting system of systems; and equipment for non-intrusive inspection systems to support the operation of entry control points.

FY 2021 M90220 / Tactical Security System (TSS) - Funding in the amount of \$14.189 million supports the procurement and fielding of eight systems, initial fielding support, training and program management. This will provide a modular, scalable, lightweight, rapidly deployable, ground based security and surveillance Family of Systems (FoS). The design of TSS allows for hasty emplacement and is tailorable to support short and long term security, surveillance and detection missions. Fielding is intended for Army Pre-position Stock (APS) with the intent to immediately deploy to ongoing OCONUS operation. This is a new start for FY21 OPA.

In accordance with Section 1815 of the FY2008 National Defense Authorization Act (P.L. 110-181), this item is necessary for use by the active and reserve components of the Armed Forces for homeland defense missions, domestic emergency responses, and providing military support to civil authorities. All quantities and funding are for Active Components.

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 10		P-1 Line Item Number / Title: 2300M90101 / Base Defense Systems (BDS)
		Item Number / Title [DODIC]: M90106 / IntegGrdSecSurvRespC (IGSSR-C)

ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:
---------------------------------------------------------	------------------------

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Procurement Quantity (Units in Each)	-	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	-	-	-	-	7.287	7.287
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	-	-	-	-	7.287	7.287
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	-	-	-	-	7.287	7.287

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (\$ in Millions)	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Thousands)	-	-	-	-	-	-

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
Flyaway Cost																		
Recurring Cost																		
IGSSR-C Equipment ^(†)	-	-	-	-	-	-	-	-	-	-	-	-	1,083.000	4	4.332	1,083.000	4	4.332
IGSSR-C Program MGMT Support	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.565	-	-	0.565
IGSSR-C Initial Filding Support	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.399	-	-	1.399
<i>Subtotal: Recurring Cost</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6.296	-	-	6.296
<i>Subtotal: Flyaway Cost</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6.296	-	-	6.296
Support - Program Management Cost																		
Contractor Management	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.991	-	-	0.991
<i>Subtotal: Support - Program Management Cost</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.991	-	-	0.991
Gross/Weapon System Cost	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7.287	-	-	7.287

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Army	Quantity	-	-	-	-	-
	Total Obligation Authority	-	-	-	7.287	7.287
Total:	Quantity	-	-	-	-	-

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army			Date: February 2020			
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 10		P-1 Line Item Number / Title: 2300M90101 / Base Defense Systems (BDS)		Item Number / Title [DODIC]: M90106 / IntegGrdSecSurvRespC (IGSSR-C)		
ID Code (A=Service Ready, B=Not Service Ready) :			MDAP/MAIS Code:			
Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Secondary Distribution	Total Obligation Authority	-	-	-	7.287	7.287

(t) indicates the presence of a P-5a

UNCLASSIFIED

Exhibit P-5a, Procurement History and Planning: PB 2021 Army							Date: February 2020				
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 10			P-1 Line Item Number / Title: 2300M90101 / Base Defense Systems (BDS)				Item Number / Title [DODIC]: M90106 / IntegGrdSecSurvRespC (IGSSR-C)				

Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty <i>(Each)</i>	Unit Cost <i>(\$ K)</i>	Specs Avail Now?	Date Revision Available	RFP Issue Date
IGSSR-C Equipment		2021	TBD / TBD	TBD	TBD	Jun 2021	Dec 2021	0	0.000	N		

Remarks:
New start supports the procurement and fielding of four systems, initial product support, training and program management.

UNCLASSIFIED

Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2021 Army															Date: February 2020				
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 10						P-1 Line Item Number / Title: 2300M90101 / Base Defense Systems (BDS)						Aggregated Items Title: M90108 / NON-INTRUSIVE INSPECTION SYSTEMS (NIIS)							

Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
			Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
NON-INTRUSIVE INSPECTION SYSTEMS (NIIS)																				
M90108 / NON-INTRUSIVE INSPECTION SYSTEMS (NIIS)			-	-	8.868	-	-	-	-	-	-	-	-	-	-	-	12.900	-	-	12.900
<i>Secondary Distribution</i>																				
Army			-	-	-	-	-	-	-	-	-	-	-	-	-	-	12.900	-	-	12.900
Subtotal: NON-INTRUSIVE INSPECTION SYSTEMS (NIIS)			-	-	8.868	-	-	-	-	-	-	-	-	-	-	-	12.900	-	-	12.900
Total			-	-	8.868	-	-	-	-	-	-	-	-	-	-	-	12.900	-	-	12.900

Note: Subtotals or Totals in this Exhibit P-40a may not be exact or sum exactly, due to rounding.

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 10	P-1 Line Item Number / Title: 2300M90101 / Base Defense Systems (BDS)	Item Number / Title [DODIC]: M90115 / INTEG BASE DEF NONSTAND EQUIP (IBD NS-E) KITTING

ID Code (A=Service Ready, B=Not Service Ready) :				MDAP/MAIS Code:			
Resource Summary		Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Procurement Quantity (<i>Units in Each</i>)		-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)		27.032	39.200	39.984	-	64.584	64.584
Less PY Advance Procurement (<i>\$ in Millions</i>)		-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)		27.032	39.200	39.984	-	64.584	64.584
Plus CY Advance Procurement (<i>\$ in Millions</i>)		-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)		27.032	39.200	39.984	-	64.584	64.584
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>							
Initial Spares (<i>\$ in Millions</i>)		-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Thousands</i>)		-	-	-	-	-	-

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
Flyaway Cost																		
Recurring Cost																		
JUONS CC-0540 Equipment ^(†)	27,032.000	1	27.032	17,651.000	2	35.302	18,172.000	2	36.344	-	-	-	22,128.000	2	44.256	22,128.000	2	44.256
JUONS CC-0540 Program Mgt Support	-	-	-	-	-	1.220	-	-	0.456	-	-	-	-	-	1.299	-	-	1.299
JUONS CC-0540 Initial Fielding Support	-	-	-	-	-	2.678	-	-	3.184	-	-	-	-	-	2.026	-	-	2.026
KAF FP Modernization Equipment ^(†)	-	-	-	-	-	-	-	-	-	-	-	-	17,003.000	1	17.003	17,003.000	1	17.003
<i>Subtotal: Recurring Cost</i>	-	-	27.032	-	-	39.200	-	-	39.984	-	-	-	-	-	64.584	-	-	64.584
<i>Subtotal: Flyaway Cost</i>	-	-	27.032	-	-	39.200	-	-	39.984	-	-	-	-	-	64.584	-	-	64.584
Gross/Weapon System Cost	-	-	27.032	-	-	39.200	-	-	39.984	-	-	-	-	-	64.584	-	-	64.584

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Army	Quantity	-	-	-	-	-
	Total Obligation Authority	39.200	39.984	-	64.584	64.584
Total:	Quantity	-	-	-	-	-

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 10	P-1 Line Item Number / Title: 2300M90101 / Base Defense Systems (BDS)	Item Number / Title [DODIC]: M90115 / INTEG BASE DEF NONSTAND EQUIP (IBD NS-E) KITTING

ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:
---------------------------------------------------------	------------------------

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Secondary Distribution	Total Obligation Authority	39.200	39.984	-	64.584	64.584

(t) indicates the presence of a P-5a

UNCLASSIFIED

Exhibit P-5a, Procurement History and Planning: PB 2021 Army							Date: February 2020				
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 10			P-1 Line Item Number / Title: 2300M90101 / Base Defense Systems (BDS)				Item Number / Title [DODIC]: M90115 / INTEG BASE DEF NONSTAND EQUIP (IBD NS-E) KITTING				

Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty <i>(Each)</i>	Unit Cost <i>(\$ K)</i>	Specs Avail Now?	Date Revision Available	RFP Issue Date
JUONS CC-0540 Equipment	✓	2021	TBD / TBD	Various	Various	Jan 2021	Dec 2021	2	22,128.000	N		
KAF FP Modernization Equipment	✓	2021	TBD / TBD	Various	Various	Jan 2021	Dec 2021	1	17,003.000	Y		

Remarks:
 JUONS CC-0540 equipment is comprised of a combination of COTS and GOTS items purchased via MIPR or through the Defense Logistics Agency (DLA). JUONS CC-0540 equipment is comprised of passive cargo inspection technologies, wide area motion imaging sensors, stand-off bulk and trace explosive detection sensors, enhanced optical vehicle inspections systems and other vehicle inspection equipment in support of JUONS CC-0540 capability gaps.
 KAF Force Protection Equipment is comprised of COTS items purchased via MIPR or through the Defense Logistics Agency (DLA). This equipment is comprised of material required to control and operate an entry control point; equipment to control and operate a base expeditionary targeting system of systems; and equipment for non-intrusive inspection systems to support the operation of entry control points.
 NIIS is a family of systems that inspects for the presence of explosives, weapons and other contraband in vehicles, cargo containers and personnel from a distance providing stand-off ballistic and blast protection.

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 10	P-1 Line Item Number / Title: 2300M90101 / Base Defense Systems (BDS)	Item Number / Title [DODIC]: M90220 / TACTICAL SECURITY SYSTEM (TSS)

ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:
---------------------------------------------------------	------------------------

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Procurement Quantity (Units in Each)	-	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	-	-	-	-	14.189	14.189
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	-	-	-	-	14.189	14.189
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	-	-	-	-	14.189	14.189

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (\$ in Millions)	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Thousands)	-	-	-	-	-	-

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
Flyaway Cost																		
Recurring Cost																		
TSS Equipment ⁽¹⁾	-	-	-	-	-	-	-	-	-	-	-	-	1,373.375	8	10.987	1,373.375	8	10.987
TSS ECP/Training/Manuals	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.893	-	-	0.893
TSS Initial Fielding Support	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.337	-	-	1.337
<i>Subtotal: Recurring Cost</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	13.217	-	-	13.217
<i>Subtotal: Flyaway Cost</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	13.217	-	-	13.217
Support - Program Management Cost																		
Contractor Management	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.972	-	-	0.972
<i>Subtotal: Support - Program Management Cost</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.972	-	-	0.972
Gross/Weapon System Cost	-	-	-	-	-	-	-	-	-	-	-	-	-	-	14.189	-	-	14.189

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Army	Quantity	-	-	-	-	-
	Total Obligation Authority	-	-	-	14.189	14.189
Total:	Quantity	-	-	-	-	-

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army			Date: February 2020			
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 10		P-1 Line Item Number / Title: 2300M90101 / Base Defense Systems (BDS)		Item Number / Title [DODIC]: M90220 / TACTICAL SECURITY SYSTEM (TSS)		
ID Code (A=Service Ready, B=Not Service Ready) :			MDAP/MAIS Code:			
Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Secondary Distribution	Total Obligation Authority	-	-	-	14.189	14.189

(t) indicates the presence of a P-5a

UNCLASSIFIED

Exhibit P-5a, Procurement History and Planning: PB 2021 Army							Date: February 2020					
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 10			P-1 Line Item Number / Title: 2300M90101 / Base Defense Systems (BDS)				Item Number / Title [DODIC]: M90220 / TACTICAL SECURITY SYSTEM (TSS)					
Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty <i>(Each)</i>	Unit Cost <i>(\$ K)</i>	Specs Avail Now?	Date Revision Available	RFP Issue Date
TSS Equipment		2021	TBD / TBD	TBD	TBD	Jun 2021	Dec 2022	0	0.000	N		

Remarks:
New start supports the procurement and fielding of eight systems, initial production support, training and program management. MS C decision 3QFY20

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 10: Chemical Defensive Equipment	P-1 Line Item Number / Title: 4516M01001 / CBRN Defense
----------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-------------------------------------------------------------------

ID Code (A=Service Ready, B=Not Service Ready):	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
--------------------------------------------------------	-----------------------------------------------	--------------------------------------------

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	23,225	2,684	231	3,732	-	3,732	4,616	8,300	8,023	9,682	-	60,493
Gross/Weapon System Cost (<i>\$ in Millions</i>)	257.382	189.271	43.289	28.456	18.887	47.343	59.180	69.931	81.281	62.602	-	810.279
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	257.382	189.271	43.289	28.456	18.887	47.343	59.180	69.931	81.281	62.602	-	810.279
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	257.382	189.271	43.289	28.456	18.887	47.343	59.180	69.931	81.281	62.602	-	810.279

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Thousands</i>)	11.082	70.518	187.398	7.625	-	12.686	12.821	8.425	10.131	6.466	-	13.395

Description:

Funds acquisition of critically required Chemical Biological Radiological equipment needed to support Army mission requirements in six primary categories: Collective Protection (CP) (M01006), Decontamination (DECON) (M01007), Contamination Avoidance (CA) (M01008), Consequence Management (CM) (M01011), Radiological Detection System (RDS) (M01280), and Explosive Ordnance Disposal (EOD) Dismounted Reconnaissance SKO (DR SKO) (M09988). Collective Protection platforms include hard and soft wall shelters, vehicles, and structures. The Contamination Avoidance program includes systems that provide detection, identification, collection and reporting of Chemical, Biological, Radiological and Nuclear (CBRN) hazards. The Individual Protection program procures protective equipment and supporting test equipment to protect the Soldier from the effects of CBRN hazards. Consequence Management (CM) (M01011) procurement, the Radiac Set supports the Radiological Detection System as the first joint solution to provide the Warfighter with the net-ready capability to measure alpha, beta, gamma, neutron, and low energy x-rays. Replaces DoD's legacy RADIAC survey meters (AN/PDR-77, VDR-2, MFR Suite, and ADM-300). The EOD DR SKO (M09988) will be used to procure select capabilities within the CBRN DR SKO capabilities for the EOD Warfighter. The CBRN DR SKO provides CBRN Warfighters with a comprehensive suite of protection, detection, identification, sample collection, hazard marking, decontamination, and other support capabilities for use during explosive ordnance render safe operations. The Warfighter will use the CBRN DRS respiratory and percutaneous protection to prevent potential contamination while conducting operations, sensor capabilities to find CBRN and toxic industrial hazards to determine the appropriate action during operations, and the decontamination kit to remove contamination from personnel and equipment. Joint Personal Dosimeter Individual (JPD-I) (W43487) support the procurement of Joint Personal Dosimeter Individual (JPD-I) sensors to provide a component to passively record and retrieve a Service member's radiation exposure. The Nuclear, Biological, and Chemical Reconnaissance Vehicles (NBCRV) Sensor Suite Upgrade (SSU)(M01008) provides maneuver formations with the ability to conduct mounted reconnaissance and surveillance missions of CBRN named areas of interest (NAIs). The NBCRV SSU answers the commander's priority intelligence requirements (PIR), and facilitates proactive risk-based decisions to ensure freedom of action and survivability. A modern and capable NBCRV Sensor Suite (SS) is critical component for Joint Force success when operating in the complex CBRN environment. The NBCRV SSU replaces the legacy NBCRV Sensor Suite (SS), increasing maneuver speed and standoff detection allowing for expedited mission efficiency.

Secondary Distribution	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	
Army	Quantity	2,669	142	200	-	200	649	2,798	3,072	3,073
	Total Obligation Authority	176.701	33.292	13.194	18.887	32.081	38.451	53.396	63.552	45.532
ANG	Quantity	12	59	2,906	-	2,906	3,201	4,014	3,449	5,105
	Total Obligation Authority	10.056	8.054	14.202	-	14.202	16.732	12.132	12.877	12.830
AR	Quantity	3	30	626	-	626	766	1,488	1,502	1,504

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 10: Chemical Defensive Equipment	P-1 Line Item Number / Title: 4516M01001 / CBRN Defense
----------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-------------------------------------------------------------------

ID Code (A=Service Ready, B=Not Service Ready):	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
--------------------------------------------------------	-----------------------------------------------	--------------------------------------------

Line Item MDAP/MAIS Code: N/A

	Secondary Distribution	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
	Total Obligation Authority	2.514	1.943	1.060	-	1.060	3.997	4.403	4.852	4.240
Total:	Quantity	2,684	231	3,732	-	3,732	4,616	8,300	8,023	9,682
Secondary Distribution	Total Obligation Authority	189.271	43.289	28.456	18.887	47.343	59.180	69.931	81.281	62.602

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity:
2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 10: Chemical Defensive Equipment

P-1 Line Item Number / Title:
4516M01001 / CBRN Defense

ID Code (A=Service Ready, B=Not Service Ready): **Program Elements for Code B Items:** N/A **Other Related Program Elements:** N/A

Line Item MDAP/MAIS Code: N/A

Exhibits Schedule					Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-5	M01006 / COLLECTIVE PROTECTION (CP)	P-5a	B		24 / 77.434	23 / 21.453	3 / 3.600	- / -	- / -	- / -
P-5	M01007 / DECONTAMINATION (DECON)	P-5a			14 / 26.424	34 / 49.000	- / -	- / -	- / -	- / -
P-5	M01008 / CONTAMINATION AVOIDANCE (CA)	P-5a, P-21			23,187 / 151.995	12 / 86.000	12 / 8.200	12 / 8.273	- / -	12 / 8.273
P-5	M01280 / Radiological Detection System				- / 1.529	2,615 / 32.818	203 / 8.803	442 / 11.289	- / -	442 / 11.289
P-5	M09988 / EOD Dismounted Reconnaissance SKO (DR SKO)	P-5a, P-21			- / -	- / -	13 / 22.686	3 / 6.907	- / 18.887	3 / 25.794
P-5	W43487 / Joint Personal Dosimeter-Individual (JPD-I)				- / -	- / -	- / -	3,275 / 1.987	- / -	3,275 / 1.987
P-40	Total Gross/Weapon System Cost				23,225 / 257.382	2,684 / 189.271	231 / 43.289	3,732 / 28.456	- / 18.887	3,732 / 47.343

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

Justification:
FY21 Base dollars in the amount of \$28.456 million and OCO dollars in the amount of \$18.887 supports the following:

Contamination Avoidance (M01008):

FY21 Base dollars in the amount of \$8.273 million supports the procurement and fielding of Man-portable Radiological Detection System (MRDS). MRDS provides increased dismounted Radiological Nuclear (RN) detection, localization, and presumptive and field-confirmatory identification of Special Nuclear Material (SNM) capabilities. The MRDS will be networked to provide a near real-time situational awareness at the tactical level. This equipment will be used to increase unit and individual survivability.

Radiological Detection System (M01280)

FY21 Base dollars in the amount of \$11.289 million supports the procurement and fielding of the Radiological Detection System as the first joint solution to provide the Warfighter with the net-ready capability to measure alpha, beta, gamma, neutron, and low energy x-rays. Replaces DoD's legacy RADIAC survey meters (AN/PDR-77, VDR-2, MFR Suite, and ADM-300). This equipment will be used to increase capability and reduce life-cycle costs, address Operation Tomodachi Lessons Learned for common, interoperable equipment with adequate sensitivity and common units of measure.

EOD Dismounted Reconnaissance SKO (DR SKO) (M09988):

FY21 Base dollars in the amount of \$6.907 and OCO dollars in the amount of \$18.887 supports the procurement & fielding of 13 EOD Dismounted Reconnaissance SKO (DR SKO) systems. This equipment will be used to provide CBRN Warfighters with a comprehensive suite of protection, detection, identification, sample collection, hazard marking, decontamination, and other support capabilities for use during explosive ordnance render safe operations. The Warfighter will use the CBRN DRS respiratory and percutaneous protection to prevent potential contamination while conducting operations, sensor capabilities to find CBRN and toxic industrial hazards to determine the appropriate action during operations, and the decontamination kit to remove contamination from personnel and equipment.

Joint Personal Dosimeter Individual (W43487):

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 10: Chemical Defensive Equipment		P-1 Line Item Number / Title: 4516M01001 / CBRN Defense
ID Code (A=Service Ready, B=Not Service Ready):	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
Line Item MDAP/MAIS Code: N/A		
FY21 Base dollars in the amount of \$1.989 million to support the procurement of 3275 Joint Personal Dosimeter Individual (JPD-I) sensors to provide a component to passively record and retrieve a Service member's radiation exposure. ----- In accordance with Section 1815 of the FY 2008 National Defense Authorization Act (P.L. 110-181), this item is necessary for use by the active and reserve components of the Armed Forces for homeland defense missions, domestic emergency responses, and providing military support to civil authorities.		

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 10	P-1 Line Item Number / Title: 4516M01001 / CBRN Defense	Item Number / Title [DODIC]: M01006 / COLLECTIVE PROTECTION (CP)

ID Code (A=Service Ready, B=Not Service Ready) : B	MDAP/MAIS Code:
-----------------------------------------------------------	------------------------

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Procurement Quantity (Units in Each)	24	23	3	-	-	-
Gross/Weapon System Cost (\$ in Millions)	77.434	21.453	3.600	-	-	-
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	77.434	21.453	3.600	-	-	-
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	77.434	21.453	3.600	-	-	-

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (\$ in Millions)	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Thousands)	3,226.417	932.739	1,200.000	-	-	-

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
Flyaway Cost																		
Recurring Cost																		
CB Protective Shelter (CBPS) ^(†)	876.897	39	34.199	869.700	10	8.697	1,376.000	2	2.752	-	-	-	-	-	-	-	-	-
Bed Reinforcement Kit	90.000	5	0.450	-	-	-	131.500	2	0.263	-	-	-	-	-	-	-	-	-
Stowage Bay Kit	90.000	5	0.450	-	-	-	131.500	2	0.263	-	-	-	-	-	-	-	-	-
CBPS M98 Filter Set	1.615	78	0.126	1.700	20	0.034	16.500	2	0.033	-	-	-	-	-	-	-	-	-
CBPS Handheld Remote Control Radio Device	1.795	39	0.070	2.400	10	0.024	16.500	2	0.033	-	-	-	-	-	-	-	-	-
MTV Frame Fishplate	-	-	-	-	-	-	17.000	2	0.034	-	-	-	-	-	-	-	-	-
CBPS Total Package Fielding (Spares)	84.000	39	3.276	78.100	10	0.781	16.500	2	0.033	-	-	-	-	-	-	-	-	-
M20A1 SCPE	15.860	1,006	15.955	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Clamps and Screws for M8E1 GPFU	-	-	0.024	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CBPS Travel Covers	-	-	-	2.286	7	0.016	-	-	-	-	-	-	-	-	-	-	-	-
CBPS M8E1 Painting	-	-	-	-	-	0.301	-	-	-	-	-	-	-	-	-	-	-	-
CBPS Parts Kits (GPFU/ECU)	-	-	-	2.500	10	0.025	-	-	-	-	-	-	-	-	-	-	-	-
CBPS M8E1 Parts Kits	-	-	-	82.600	10	0.826	-	-	-	-	-	-	-	-	-	-	-	-
CBPS M8E1 Embedded Computers	-	-	-	10.100	10	0.101	-	-	-	-	-	-	-	-	-	-	-	-

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 10		P-1 Line Item Number / Title: 4516M01001 / CBRN Defense
ID Code (A=Service Ready, B=Not Service Ready) : B		MDAP/MAIS Code:
Item Number / Title [DODIC]: M01006 / COLLECTIVE PROTECTION (CP)		

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
JECP Total Package Fielding	-	-	-	-	-	2.291	-	-	-	-	-	-	-	-	-	-	-	-
JECP Stand Alone Large ^(†)	-	-	-	259.389	18	4.669	-	-	-	-	-	-	-	-	-	-	-	-
CPDEPMEDS	-	-	16.221	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CB Protective Shelter (CBPS) Fixed Site ATP	869.500	2	1.739	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CBPS M98 Filter Set Fixed Site ATP	1.750	4	0.007	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CBPS Handheld Remote Control Radio Device Fixed Site ATP	2.500	2	0.005	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Clamps and Screws for M8E1 GPFU Fixed Site ATP	-	-	0.005	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Stowage Bay Kit Fixed Site ATP	90.000	2	0.180	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bed Reinforcement Kit Fixed Site ATP	90.000	2	0.180	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Recurring Cost</i>	-	-	72.887	-	-	17.765	-	-	3.411	-	-	-	-	-	-	-	-	-
Non Recurring Cost																		
Accounting Adjustment	-	-	-	-	-	3.040	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Non Recurring Cost</i>	-	-	-	-	-	3.040	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Flyaway Cost</i>	-	-	72.887	-	-	20.805	-	-	3.411	-	-	-	-	-	-	-	-	-
Support - Program Management Cost																		
Government Management	-	-	1.100	-	-	0.548	-	-	0.189	-	-	-	-	-	-	-	-	-
Contractor Management	-	-	1.628	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Support - Program Management Cost</i>	-	-	2.728	-	-	0.548	-	-	0.189	-	-	-	-	-	-	-	-	-
Support - Staging and Transportation Cost																		
Staging and Transportation	-	-	1.819	-	-	0.100	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Support - Staging and Transportation Cost</i>	-	-	1.819	-	-	0.100	-	-	-	-	-	-	-	-	-	-	-	-

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 10	P-1 Line Item Number / Title: 4516M01001 / CBRN Defense	Item Number / Title [DODIC]: M01006 / COLLECTIVE PROTECTION (CP)
ID Code (A=Service Ready, B=Not Service Ready) : B		MDAP/MAIS Code:

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
Gross/Weapon System Cost	3,226.417	24	77.434	932.739	23	21.453	1,200.000	3	3.600	-	-	-	-	-	-	-	-	-

Remarks:

Unit costs for CBPS will increase or decrease depending on the number of systems procured each year.

FY19 PB cost element ?account adjustment? \$3.040M- Adjustments within the parent (M01001) were made amongst the child SSN based on AROC requirements that were approved by the GOSC on 7 August 2018. These changes were not captured in the FY19 controls.

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Army	Quantity	8	1	-	-	-
	Total Obligation Authority	8.883	1.640	-	-	-
ANG	Quantity	12	1	-	-	-
	Total Obligation Authority	10.056	0.980	-	-	-
AR	Quantity	3	1	-	-	-
	Total Obligation Authority	2.514	0.980	-	-	-
Total: Secondary Distribution	Quantity	23	3	-	-	-
	Total Obligation Authority	21.453	3.600	-	-	-

(t) indicates the presence of a P-5a

UNCLASSIFIED

Exhibit P-5a, Procurement History and Planning: PB 2021 Army							Date: February 2020					
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 10			P-1 Line Item Number / Title: 4516M01001 / CBRN Defense				Item Number / Title [DODIC]: M01006 / COLLECTIVE PROTECTION (CP)					

Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty (Each)	Unit Cost (\$ K)	Specs Avail Now?	Date Revision Available	RFP Issue Date
CB Protective Shelter (CBPS)		2018	Pine Bluff Arsenal / Pine Bluff, AR	PO	N/A	Jan 2018	Apr 2019	5	990.600	Y		
CB Protective Shelter (CBPS)		2019	Pine Bluff Arsenal / Pine Bluff, AR	PO	N/A	Jan 2019	Jun 2020	10	869.700	Y		
CB Protective Shelter (CBPS)		2020	Pine Bluff Arsenal / Pine Bluff, AR	PO	N/A	Jan 2020	Jan 2021	2	1,376.000	Y		
JECP Stand Alone Large		2019	Production Products MFG / St Louis, MO	C / FFP	Aberdeen, MD	Jun 2019	Jul 2020	18	259.389	Y		

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 10	P-1 Line Item Number / Title: 4516M01001 / CBRN Defense	Item Number / Title [DODIC]: M01007 / DECONTAMINATION (DECON)

ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:
---------------------------------------------------------	------------------------

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Procurement Quantity (Units in Each)	14	34	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	26.424	49.000	-	-	-	-
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	26.424	49.000	-	-	-	-
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	26.424	49.000	-	-	-	-

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (\$ in Millions)	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Thousands)	1,887.429	1,441.176	-	-	-	-

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
Flyaway Cost																		
Recurring Cost																		
Mass Personnel Decontamination (MPD) Systems ^(†)	365.000	12	4.380	262.125	8	2.097	-	-	-	-	-	-	-	-	-	-	-	-
High Mobility Decontamination System (HMDS) ^(†)	248.500	34	8.449	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Decontaminant - High Mobility Decontamination System (HMDS)	30.000	228	6.840	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Recurring Cost</i>	-	-	19.669	-	-	2.097	-	-	-	-	-	-	-	-	-	-	-	-
Non Recurring Cost																		
Joint Personal Dosimeters - Congressional Add ^(†)	-	-	-	0.415	28,976	12.025	-	-	-	-	-	-	-	-	-	-	-	-
Accounting Adjustment	-	-	4.134	-	-	26.801	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Non Recurring Cost</i>	-	-	4.134	-	-	38.826	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Flyaway Cost</i>	-	-	23.803	-	-	40.923	-	-	-	-	-	-	-	-	-	-	-	-
Package Fielding Cost																		
Recurring Cost																		

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 10	P-1 Line Item Number / Title: 4516M01001 / CBRN Defense	Item Number / Title [DODIC]: M01007 / DECONTAMINATION (DECON)

ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:
---------------------------------------------------------	------------------------

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
MPD Total Package Fielding	-	-	-	-	-	1.995	-	-	-	-	-	-	-	-	-	-	-	-
HMDS Total Package Fielding	-	-	0.040	-	-	0.842	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Recurring Cost</i>	-	-	0.040	-	-	2.837	-	-	-	-	-	-	-	-	-	-	-	-
Non Recurring Cost																		
Joint Personal Dosimeters Fielding - Congressional Add	-	-	-	-	-	0.975	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Non Recurring Cost</i>	-	-	-	-	-	0.975	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Package Fielding Cost</i>	-	-	0.040	-	-	3.812	-	-	-	-	-	-	-	-	-	-	-	-
Support - Contractor Logistics Support (CLS) Cost																		
Oversight	-	-	0.195	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Support - Contractor Logistics Support (CLS) Cost</i>	-	-	0.195	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Support - Initial Spares and Repair Parts Cost																		
Initial Spares and Repair Parts	-	-	-	-	-	0.963	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Support - Initial Spares and Repair Parts Cost</i>	-	-	-	-	-	0.963	-	-	-	-	-	-	-	-	-	-	-	-
Support - New Equipment Training (NET) Cost																		
Equipment	-	-	-	-	-	0.061	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Support - New Equipment Training (NET) Cost</i>	-	-	-	-	-	0.061	-	-	-	-	-	-	-	-	-	-	-	-
Support - Program Management Cost																		
Government Management	-	-	1.590	-	-	0.972	-	-	-	-	-	-	-	-	-	-	-	-
Contractor Management	-	-	0.173	-	-	0.254	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Support - Program Management Cost</i>	-	-	1.763	-	-	1.226	-	-	-	-	-	-	-	-	-	-	-	-
Support - System Engineering Cost																		
System Engineering	-	-	0.461	-	-	2.015	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Support - System Engineering Cost</i>	-	-	0.461	-	-	2.015	-	-	-	-	-	-	-	-	-	-	-	-

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 10	P-1 Line Item Number / Title: 4516M01001 / CBRN Defense	Item Number / Title [DODIC]: M01007 / DECONTAMINATION (DECON)

ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:
---------------------------------------------------------	------------------------

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
Support - System Test and Evaluation Cost																		
Test and Evaluation Support	-	-	0.162	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Support - System Test and Evaluation Cost</i>	-	-	0.162	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost	1,887.429	14	26.424	1,441.176	34	49.000	-	-	-	-	-	-	-	-	-	-	-	-

Remarks:
FY19 PB cost element ?account adjustment? \$26.801M - Adjustments within the parent (M01001) were made amongst the child SSN based on AROC requirements that were approved by the GOSC on 7 August 2018. These changes were not captured in the FY19 controls.

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Army	Quantity	34	-	-	-	-
	Total Obligation Authority	49.000	-	-	-	-
Total:	Quantity	34	-	-	-	-
Secondary Distribution	Total Obligation Authority	49.000	-	-	-	-

(t) indicates the presence of a P-5a

UNCLASSIFIED

Exhibit P-5a, Procurement History and Planning: PB 2021 Army							Date: February 2020				
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 10			P-1 Line Item Number / Title: 4516M01001 / CBRN Defense				Item Number / Title [DODIC]: M01007 / DECONTAMINATION (DECON)				

Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty (Each)	Unit Cost (\$ K)	Specs Avail Now?	Date Revision Available	RFP Issue Date
Mass Personnel Decontamination (MPD) Systems		2018	Airboss / Landover, Maryland	C / FFP	Landover, Maryland	May 2018	Aug 2018	12	365.000	Y		
Mass Personnel Decontamination (MPD) Systems		2019	Airboss / Landover, Maryland	SS / FFP	Picatinny Arsenal	Aug 2019	Sep 2019	8	262.125	Y		
High Mobility Decontamination System (HMDS)		2018	Intelagard / Lafayette, Colorado	C / FFP	Picatinny Arsenal	Jun 2018	Oct 2018	34	248.500	N		
Joint Personal Dosimeters - Congressional Add		2019	TBD / TBD	C / FFP	ACC, APG, MD	Aug 2019	Dec 2019	28,976	0.415	Y		

Remarks:
Joint Personal Dosimeter Individual (JPD-I) transitions with the FY20 Appropriation to (APE W43487)

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 10	P-1 Line Item Number / Title: 4516M01001 / CBRN Defense	Item Number / Title [DODIC]: M01008 / CONTAMINATION AVOIDANCE (CA)

ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:
---------------------------------------------------------	------------------------

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Procurement Quantity (Units in Each)	23,187	12	12	12	-	12
Gross/Weapon System Cost (\$ in Millions)	151.995	86.000	8.200	8.273	-	8.273
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	151.995	86.000	8.200	8.273	-	8.273
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	151.995	86.000	8.200	8.273	-	8.273

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (\$ in Millions)	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Thousands)	6.555	7,166.667	683.333	689.417	-	689.417

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
Flyaway Cost																		
Recurring Cost																		
CRESS Kits ^(†)	0.334	9,971	3.330	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Com Adapter	5.885	10,192	59.978	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
JCAD	7.407	11,311	83.782	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
FY 17 OCO	-	-	0.003	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Recurring Cost</i>	-	-	147.093	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Flyaway Cost</i>	-	-	147.093	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hardware Cost																		
Recurring Cost																		
CBRN Robotic ^(†)	1,159.000	4	4.636	499.182	22	10.982	-	-	-	-	-	-	-	-	-	-	-	-
MRDS Hardware Costs ^(†)	-	-	-	776.769	13	10.098	528.929	14	7.405	528.929	14	7.405	-	-	-	528.929	14	7.405
<i>Subtotal: Recurring Cost</i>	-	-	4.636	-	-	21.080	-	-	7.405	-	-	7.405	-	-	-	-	-	7.405
Non Recurring Cost																		
Integrated Early Warning	-	-	-	-	-	40.000	-	-	-	-	-	-	-	-	-	-	-	-
PINS	-	-	-	354.167	12	4.250	-	-	-	-	-	-	-	-	-	-	-	-
RAZORS	-	-	-	40.625	80	3.250	-	-	-	-	-	-	-	-	-	-	-	-
HAPSITE	-	-	-	203.125	16	3.250	-	-	-	-	-	-	-	-	-	-	-	-
CBRN Robotic Radios	-	-	-	-	-	4.890	-	-	-	-	-	-	-	-	-	-	-	-

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 10	P-1 Line Item Number / Title: 4516M01001 / CBRN Defense	Item Number / Title [DODIC]: M01008 / CONTAMINATION AVOIDANCE (CA)

ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:
---------------------------------------------------------	------------------------

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
<i>Subtotal: Non Recurring Cost</i>	-	-	-	-	-	55.640	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Hardware Cost</i>	-	-	4.636	-	-	76.720	-	-	7.405	-	-	7.405	-	-	-	-	-	7.405
Package Fielding Cost																		
Recurring Cost																		
MRDS Fielding Costs	-	-	-	23.231	13	0.302	21.571	14	0.302	21.571	14	0.302	-	-	-	21.571	14	0.302
<i>Subtotal: Recurring Cost</i>	-	-	-	-	-	0.302	-	-	0.302	-	-	0.302	-	-	-	-	-	0.302
Non Recurring Cost																		
Fielding for CBRN Robotics	-	-	-	-	-	2.960	-	-	-	-	-	-	-	-	-	-	-	-
Fielding for PINS Integration	-	-	-	-	-	0.750	-	-	-	-	-	-	-	-	-	-	-	-
Fielding for RAZOR Integration	-	-	-	-	-	0.750	-	-	-	-	-	-	-	-	-	-	-	-
Fielding for HAPSITE Integration	-	-	-	-	-	0.750	-	-	-	-	-	-	-	-	-	-	-	-
JUONS CC-0557 FOB Integration to IBD-K	-	-	0.265	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Non Recurring Cost</i>	-	-	0.265	-	-	5.210	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Package Fielding Cost</i>	-	-	0.265	-	-	5.512	-	-	0.302	-	-	0.302	-	-	-	-	-	0.302
Support - Program Management Cost																		
Government Management	-	-	-	-	-	3.768	85.000	2	0.170	-	-	0.566	-	-	-	-	-	0.566
Contractor Management	-	-	-	-	-	-	161.500	2	0.323	-	-	-	-	-	-	-	-	-
<i>Subtotal: Support - Program Management Cost</i>	-	-	-	-	-	3.768	-	-	0.493	-	-	0.566	-	-	-	-	-	0.566
Gross/Weapon System Cost	6.555	23,187	151.995	7,166.667	12	86.000	683.333	12	8.200	689.417	12	8.273	-	-	-	689.417	12	8.273

Remarks:
Unit cost for the procurement of the Man-portable Radiological Detection System varies due to the type and quantity of the configurations that are needed in that fiscal year.

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Army	Quantity	12	12	6	-	6

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 10	P-1 Line Item Number / Title: 4516M01001 / CBRN Defense	Item Number / Title [DODIC]: M01008 / CONTAMINATION AVOIDANCE (CA)

ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:
---------------------------------------------------------	------------------------

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
	Total Obligation Authority	86.000	8.200	4.137	-	4.137
ANG	Quantity	-	-	6	-	6
	Total Obligation Authority	-	-	4.136	-	4.136
Total:	Quantity	12	12	12	-	12
Secondary Distribution	Total Obligation Authority	86.000	8.200	8.273	-	8.273

(t) indicates the presence of a P-5a

UNCLASSIFIED

Exhibit P-5a, Procurement History and Planning: PB 2021 Army							Date: February 2020				
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 10			P-1 Line Item Number / Title: 4516M01001 / CBRN Defense				Item Number / Title [DODIC]: M01008 / CONTAMINATION AVOIDANCE (CA)				

Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty (Each)	Unit Cost (\$ K)	Specs Avail Now?	Date Revision Available	RFP Issue Date
CRESS Kits		2018	Pine Bluff Arsenal / Pine Bluff, AK	MIPR	Pine Bluff Arsenal	Feb 2018	Mar 2018	4,820	0.334	N		
CBRN Robotic		2019	Qinetiq / Waltham, MA	MIPR	Waltham, MA	Jan 2019	Apr 2019	22	499.182	N		
MRDS Hardware Costs ^(t)		2019	Multiple Vendors / Multiple Locations	C / FFP	Various	Sep 2019	Dec 2019	13	776.769	N		
MRDS Hardware Costs ^(t)		2020	Multiple Vendors / Multiple Locations	C / FFP	Various	Mar 2020	Jun 2020	14	528.929	N		
MRDS Hardware Costs ^(t)		2021	Multiple Vendors / Multiple Locations	C / FFP	Various	Mar 2021	Jul 2021	14	528.929	N		

^(t) indicates the presence of a P-21

UNCLASSIFIED

Exhibit P-21, Production Schedule: PB 2021 Army															Date: February 2020														
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 10										P-1 Line Item Number / Title: 4516M01001 / CBRN Defense										Item Number / Title [DODIC]: M01008 / CONTAMINATION AVOIDANCE (CA)									

Cost Elements <i>(Units in Each)</i>						Fiscal Year 2020													Fiscal Year 2021													BALANCE			
O C C #	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2019	BAL DUE AS OF 1 OCT	Calendar Year 2020													Calendar Year 2021															
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P					
MRDS Hardware Costs																																			
1		2019	ARMY	13	0	13	-	-	2	1	2	1	2	1	2	2														0					
1		2020	ARMY	14	0	14								A	-	-	-	1	2	1	2	1	2	1	2	1	1			0					
1		2021	ARMY	14	0	14																					A	-	-	-	-	5	5	4	0
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P					

UNCLASSIFIED

Exhibit P-21, Production Schedule: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 10		P-1 Line Item Number / Title: 4516M01001 / CBRN Defense
Item Number / Title [DODIC]: M01008 / CONTAMINATION AVOIDANCE (CA)		

MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Month)			Procurement Leadtime (Months)								
		MSR For 2021	1-8-5 For 2021	MAX For 2021	Initial				Reorder				
					ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1	ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1	
1	Multiple Vendors - Multiple Locations	1	14	28	0	0	0	0	0	0	0	0	0

"A" in the Delivery Schedule indicates the Contract Award Date.

Note: Due to space limitations, quantities in the Exhibit P-21 delivery calendar are truncated and rounded based on the maximum quantity in the calendar as follows. If the maximum quantity is less than or equal to than 9,999, all quantities are shown as each. If the maximum quantity is between 10,000 and 999,999 all quantities are shown in thousands. If the maximum quantity is between 1,000,000 and 999,999,999 all quantities are shown in millions (rounded to the nearest thousand). If the maximum quantity is equal or greater than 1,000,000,000 all quantities are shown in billions (rounded to the nearest million).

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army											Date: February 2020							
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 10						P-1 Line Item Number / Title: 4516M01001 / CBRN Defense					Item Number / Title [DODIC]: M01280 / Radiological Detection System							
ID Code (A=Service Ready, B=Not Service Ready) :											MDAP/MAIS Code:							
Resource Summary				Prior Years		FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO		FY 2021 Total	
Procurement Quantity (Units in Each)				-		2,615			203			442			-		442	
Gross/Weapon System Cost (\$ in Millions)				1.529		32.818			8.803			11.289			-		11.289	
Less PY Advance Procurement (\$ in Millions)				-		-			-			-			-		-	
Net Procurement (P-1) (\$ in Millions)				1.529		32.818			8.803			11.289			-		11.289	
Plus CY Advance Procurement (\$ in Millions)				-		-			-			-			-		-	
Total Obligation Authority (\$ in Millions)				1.529		32.818			8.803			11.289			-		11.289	
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>																		
Initial Spares (\$ in Millions)				-		-			-			-			-		-	
Gross/Weapon System Unit Cost (\$ in Thousands)				-		12.550			43.365			25.541			-		25.541	

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
Flyaway Cost																		
Recurring Cost																		
AN/PDR-77 Hardware	3.443	440	1.515	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Engineering Support	-	-	0.014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
JPD- I	-	-	-	-	-	-	0.415	3,857	1.599	-	-	-	-	-	-	-	-	-
Radiological Detection System Hardware Config 1	-	-	-	1.630	1,546	2.520	-	-	-	-	-	-	-	-	-	-	-	-
Radiological Detection System Hardware Config 2	-	-	-	16.460	274	4.510	17.441	143	2.494	18.328	442	8.101	-	-	-	18.328	442	8.101
Radiological Detection System Hardware Config 3	-	-	-	19.274	795	15.323	20.600	60	1.236	-	-	-	-	-	-	-	-	-
Radiological Detection System Warranty	-	-	-	-	-	3.647	-	-	0.360	-	-	-	-	-	-	-	-	-
<i>Subtotal: Recurring Cost</i>	-	-	1.529	-	-	26.000	-	-	5.689	-	-	8.101	-	-	-	-	-	8.101
<i>Subtotal: Flyaway Cost</i>	-	-	1.529	-	-	26.000	-	-	5.689	-	-	8.101	-	-	-	-	-	8.101
Package Fielding Cost																		
Recurring Cost																		
New Equipment Training	-	-	-	-	-	1.033	-	-	0.036	-	-	-	-	-	-	-	-	-
<i>Subtotal: Recurring Cost</i>	-	-	-	-	-	1.033	-	-	0.036	-	-	-	-	-	-	-	-	-
Non Recurring Cost																		
Fielding Cost RDS	-	-	-	-	-	1.189	-	-	0.230	-	-	0.120	-	-	-	-	-	0.120

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 10		P-1 Line Item Number / Title: 4516M01001 / CBRN Defense
		Item Number / Title [DODIC]: M01280 / Radiological Detection System
ID Code (A=Service Ready, B=Not Service Ready) :		MDAP/MAIS Code:

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
Fielding Cost JPD-I	-	-	-	-	-	-	-	-	0.161	-	-	-	-	-	-	-	-	-
<i>Subtotal: Non Recurring Cost</i>	-	-	-	-	-	1.189	-	-	0.391	-	-	0.120	-	-	-	-	-	0.120
<i>Subtotal: Package Fielding Cost</i>	-	-	-	-	-	2.222	-	-	0.427	-	-	0.120	-	-	-	-	-	0.120
Support - Production Engineering Cost																		
Production Engineering	-	-	-	-	-	0.934	-	-	1.641	-	-	1.628	-	-	-	-	-	1.628
<i>Subtotal: Support - Production Engineering Cost</i>	-	-	-	-	-	0.934	-	-	1.641	-	-	1.628	-	-	-	-	-	1.628
Support - Program Management Cost																		
Government Management	-	-	-	-	-	2.390	-	-	1.044	-	-	1.090	-	-	-	-	-	1.090
<i>Subtotal: Support - Program Management Cost</i>	-	-	-	-	-	2.390	-	-	1.044	-	-	1.090	-	-	-	-	-	1.090
Support - Quality Assurance Cost																		
Quality Assurance	-	-	-	-	-	1.272	-	-	-	-	-	0.350	-	-	-	-	-	0.350
<i>Subtotal: Support - Quality Assurance Cost</i>	-	-	-	-	-	1.272	-	-	-	-	-	0.350	-	-	-	-	-	0.350
Gross/Weapon System Cost	-	-	1.529	12.550	2,615	32.818	43.365	203	8.803	25.541	442	11.289	-	-	-	25.541	442	11.289

Remarks:

The Chemical and Biological Defense Program (CBDP) also plans to fund \$4.065 million in FY20 Base toward the RDS effort on CBDP PE 0208384BP/item SA0011 and \$4.957 million in FY 2020 Base for the JPD-I effort on OSD PE 0208384BP/item SA0012.

Unit cost change from FY19 to FY20 is due to a decrease in total funding (Army/CBDP). This decrease pushed the quantities below the Economic Order Quantity savings.

FY20 Base dollars in the amount of \$2.0 million supports the procurement of 3,857 Joint Personal Dosimeter-Individual sensors and \$6.804 million supports the procurement of 203 Radiological Detection Systems.

FY20 OCO dollars in the amount of \$.011 million for the Joint Personal Dosimeter-Individual to support the fielding of European Deterrence Initiative.

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Army	Quantity	2,615	119	194	-	194
	Total Obligation Authority	32.818	6.001	9.057	-	9.057
ANG	Quantity	-	55	167	-	167
	Total Obligation Authority	-	1.839	1.503	-	1.503

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 10	P-1 Line Item Number / Title: 4516M01001 / CBRN Defense	Item Number / Title [DODIC]: M01280 / Radiological Detection System
----------------------------------------------------------------------------------	-------------------------------------------------------------------	-------------------------------------------------------------------------------

ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:
---------------------------------------------------------	------------------------

	Secondary Distribution	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
AR	Quantity	-	29	81	-	81
	Total Obligation Authority	-	0.963	0.729	-	0.729
Total:	Quantity	2,615	203	442	-	442
Secondary Distribution	Total Obligation Authority	32.818	8.803	11.289	-	11.289

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 10	P-1 Line Item Number / Title: 4516M01001 / CBRN Defense	Item Number / Title [DODIC]: M09988 / EOD Dismounted Reconnaissance SKO (DR SKO)

ID Code (A=Service Ready, B=Not Service Ready) :				MDAP/MAIS Code:			
Resource Summary		Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Procurement Quantity (<i>Units in Each</i>)		-	-	13	3	-	3
Gross/Weapon System Cost (<i>\$ in Millions</i>)		-	-	22.686	6.907	18.887	25.794
Less PY Advance Procurement (<i>\$ in Millions</i>)		-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)		-	-	22.686	6.907	18.887	25.794
Plus CY Advance Procurement (<i>\$ in Millions</i>)		-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)		-	-	22.686	6.907	18.887	25.794
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>							
Initial Spares (<i>\$ in Millions</i>)		-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Thousands</i>)		-	-	1,745.077	2,302.333	-	8,598.000

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
Hardware Cost																		
Recurring Cost																		
CBRND DRS EOD Configuration ^(†)	-	-	-	-	-	-	1,890.500	12	22.686	-	-	-	-	-	-	-	-	-
ARMY EOD DR SKO Configuration ^(†)	-	-	-	-	-	-	-	-	-	1,807.667	3	5.423	1,807.500	10	18.075	1,807.538	13	23.498
<i>Subtotal: Recurring Cost</i>	-	-	-	-	-	-	-	-	-	-	-	5.423	-	-	18.075	-	-	23.498
<i>Subtotal: Hardware Cost</i>	-	-	-	-	-	-	-	-	-	-	-	5.423	-	-	18.075	-	-	23.498
Package Fielding Cost																		
Recurring Cost																		
Fielding, New Equipment and Doctrine & Tactics Training (DTT)	-	-	-	-	-	-	-	-	-	-	-	0.350	-	-	0.490	-	-	0.840
<i>Subtotal: Recurring Cost</i>	-	-	-	-	-	-	-	-	-	-	-	0.350	-	-	0.490	-	-	0.840
<i>Subtotal: Package Fielding Cost</i>	-	-	-	-	-	-	-	-	-	-	-	0.350	-	-	0.490	-	-	0.840
Logistics Cost																		
Recurring Cost																		
Logistics Support	-	-	-	-	-	-	-	-	-	-	-	0.225	-	-	0.322	-	-	0.547
<i>Subtotal: Recurring Cost</i>	-	-	-	-	-	-	-	-	-	-	-	0.225	-	-	0.322	-	-	0.547
<i>Subtotal: Logistics Cost</i>	-	-	-	-	-	-	-	-	-	-	-	0.225	-	-	0.322	-	-	0.547

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 10	P-1 Line Item Number / Title: 4516M01001 / CBRN Defense	Item Number / Title [DODIC]: M09988 / EOD Dismounted Reconnaissance SKO (DR SKO)

ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:
---------------------------------------------------------	------------------------

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
Support - Program Management Cost																		
Government Management	-	-	-	-	-	-	-	-	-	-	-	0.909	-	-	-	-	-	0.909
<i>Subtotal: Support - Program Management Cost</i>	-	-	-	-	-	-	-	-	-	-	-	0.909	-	-	-	-	-	0.909
Gross/Weapon System Cost	-	-	-	-	-	-	1,745.077	13	22.686	2,302.333	3	6.907	-	-	18.887	8,598.000	3	25.794

Remarks:
The Explosive Ordnance Disposal (EOD) Dismounted Reconnaissance Sets, Kits and Outfits (DR SKO) will be used to procure the CBRN DR SKO capabilities for the EOD Warfighter. The CBRN DR SKO provides CBRN Warfighters with a comprehensive suite of protection, detection, identification, sample collection, hazard marking, decontamination, and other support capabilities for use during explosive ordnance render safe operations. The Warfighter will use the CBRN DRS respiratory and percutaneous protection to prevent potential contamination while conducting operations, sensor capabilities to find CBRN and toxic industrial hazards to determine the appropriate action during operations, and the decontamination kit to remove contamination from personnel and equipment.

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Army	Quantity	-	10	-	-	-
	Total Obligation Authority	-	17.451	-	18.887	18.887
ANG	Quantity	-	3	3	-	3
	Total Obligation Authority	-	5.235	6.907	-	6.907
Total:	Quantity	-	13	3	-	3
Secondary Distribution	Total Obligation Authority	-	22.686	6.907	18.887	25.794

(t) indicates the presence of a P-5a

UNCLASSIFIED

Exhibit P-5a, Procurement History and Planning: PB 2021 Army							Date: February 2020				
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 10			P-1 Line Item Number / Title: 4516M01001 / CBRN Defense				Item Number / Title [DODIC]: M09988 / EOD Dismounted Reconnaissance SKO (DR SKO)				

Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty <i>(Each)</i>	Unit Cost <i>(\$ K)</i>	Specs Avail Now?	Date Revision Available	RFP Issue Date
CBRND DRS EOD Configuration		2020	Pine Bluff Arsenal / Pine Bluff, Arkansas	MIPR	Pine Bluff Arsenal, Pine Bluff, AR	Jan 2020	Jun 2020	12	1,890.500	Y		
ARMY EOD DR SKO Configuration ^(†)		2021	Pine Bluff Arsenal / Pine Bluff, Arkansas	MIPR	Pine Bluff Arsenal, Pine Bluff, AR	Jan 2021	Jun 2021	3	1,807.667	Y		
ARMY EOD DR SKO Configuration ^(†)	✓	2021	Pine Bluff Arsenal / Pine Bluff, Arkansas	MIPR	Pine Bluff Arsenal, Pine Bluff, AR	Jan 2021	Jul 2021	10	1,807.500	Y		

^(†) indicates the presence of a P-21

Remarks:
EOD DRSKO systems will be manufactured at Pine Bluff Arsenal alongside CBRN DRSKO systems to maximize efficiencies and minimize costs of for components.

UNCLASSIFIED

Exhibit P-21, Production Schedule: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 10		P-1 Line Item Number / Title: 4516M01001 / CBRN Defense
Item Number / Title [DODIC]: M09988 / EOD Dismounted Reconnaissance SKO (DR SKO)		

MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Month)			Procurement Leadtime (Months)							
		MSR For 2021	1-8-5 For 2021	MAX For 2021	Initial				Reorder			
					ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1	ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1
1	Pine Bluff Arsenal - Pine Bluff, Arkansas	1	6	20	0	5	8	13	0	5	5	10

"A" in the Delivery Schedule indicates the Contract Award Date.

Note: Due to space limitations, quantities in the Exhibit P-21 delivery calendar are truncated and rounded based on the maximum quantity in the calendar as follows. If the maximum quantity is less than or equal to than 9,999, all quantities are shown as each. If the maximum quantity is between 10,000 and 999,999 all quantities are shown in thousands. If the maximum quantity is between 1,000,000 and 999,999,999 all quantities are shown in millions (rounded to the nearest thousand). If the maximum quantity is equal or greater than 1,000,000,000 all quantities are shown in billions (rounded to the nearest million).

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 10	P-1 Line Item Number / Title: 4516M01001 / CBRN Defense	Item Number / Title [DODIC]: W43487 / Joint Personal Dosimeter-Individual (JPD-I)

ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:
---------------------------------------------------------	------------------------

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Procurement Quantity (Units in Each)	-	-	-	3,275	-	3,275
Gross/Weapon System Cost (\$ in Millions)	-	-	-	1.987	-	1.987
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	-	-	-	1.987	-	1.987
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	-	-	-	1.987	-	1.987

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (\$ in Millions)	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Thousands)	-	-	-	0.607	-	0.607

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
Hardware Cost																		
Recurring Cost																		
JPD-I	-	-	-	-	-	-	-	-	-	0.393	3,275	1.286	-	-	-	0.393	3,275	1.286
<i>Subtotal: Recurring Cost</i>	-	-	-	-	-	-	-	-	-	-	-	1.286	-	-	-	-	-	1.286
<i>Subtotal: Hardware Cost</i>	-	-	-	-	-	-	-	-	-	-	-	1.286	-	-	-	-	-	1.286
Package Fielding Cost																		
Recurring Cost																		
Fielding Support	-	-	-	-	-	-	-	-	-	-	-	0.300	-	-	-	-	-	0.300
<i>Subtotal: Recurring Cost</i>	-	-	-	-	-	-	-	-	-	-	-	0.300	-	-	-	-	-	0.300
<i>Subtotal: Package Fielding Cost</i>	-	-	-	-	-	-	-	-	-	-	-	0.300	-	-	-	-	-	0.300
Logistics Cost																		
Recurring Cost																		
Logistics Support	-	-	-	-	-	-	-	-	-	-	-	0.075	-	-	-	-	-	0.075
<i>Subtotal: Recurring Cost</i>	-	-	-	-	-	-	-	-	-	-	-	0.075	-	-	-	-	-	0.075
<i>Subtotal: Logistics Cost</i>	-	-	-	-	-	-	-	-	-	-	-	0.075	-	-	-	-	-	0.075
Support - Program Management Cost																		
Government Management	-	-	-	-	-	-	-	-	-	-	-	0.325	-	-	-	-	-	0.325
<i>Subtotal: Support - Program Management Cost</i>	-	-	-	-	-	-	-	-	-	-	-	0.325	-	-	-	-	-	0.325

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 10	P-1 Line Item Number / Title: 4516M01001 / CBRN Defense	Item Number / Title [DODIC]: W43487 / Joint Personal Dosimeter-Individual (JPD-I)
ID Code (A=Service Ready, B=Not Service Ready) :		MDAP/MAIS Code:

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
Gross/Weapon System Cost	-	-	-	-	-	-	-	-	-	0.607	3,275	1.987	-	-	-	0.607	3,275	1.987

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
ANG	Quantity	-	-	2,730	-	2,730
	Total Obligation Authority	-	-	1.656	-	1.656
AR	Quantity	-	-	545	-	545
	Total Obligation Authority	-	-	0.331	-	0.331
Total: Secondary Distribution	Quantity	-	-	3,275	-	3,275
	Total Obligation Authority	-	-	1.987	-	1.987

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 10: Chemical Defensive Equipment	P-1 Line Item Number / Title: 6230MX0600 / Smoke & Obscurant Family: SOF (Non AAO Item)
----------------------------------------------------------------------------------------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------------

ID Code (A=Service Ready, B=Not Service Ready):	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
--------------------------------------------------------	-----------------------------------------------	--------------------------------------------

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	36	100	-	100	-	-	-	-	-	136
Gross/Weapon System Cost (<i>\$ in Millions</i>)	11.297	-	5.050	13.995	-	13.995	-	-	-	-	-	30.342
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	11.297	-	5.050	13.995	-	13.995	-	-	-	-	-	30.342
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	11.297	-	5.050	13.995	-	13.995	-	-	-	-	-	30.342

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Thousands</i>)	-	-	140.278	139.950	-	139.950	-	-	-	-	-	223.103

Description:

The Screening Obscuration Module (SOM) will increase platform survivability and soldier protection levels of maneuver forces by degrading enemy forces ability to detect US targets. The use of battlefield obscuration is a time-tested military tactic to protect personnel, vehicles, equipment, and structures from detection; and to screen the locations, activities, and actions of friendly forces. Commanders who employ obscuration enjoy greater tactical success, freedom of maneuver, and force protection. The SOM assists the Brigade Combat Team (BCT) in retaining freedom of maneuver, conducting breaching operations, breaking contact with the enemy during security operations, and deceiving the enemy of the BCT's intentions. The SOM accomplishes this by degrading enemy forces ability to detect US targets in the visual and near infrared region of the electromagnetic spectrum. The SOM will provide a man portable mountable and dismountable medium area visual screening obscuration capability that can be applied to manned combat platforms and unmanned robotic systems. The individual Soldier or team will employ the SOM devices on open and complex terrain as part of cross-domain obscuration effects synchronized with land and air maneuver during cross-domain windows of advantage.

Secondary Distribution	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
Army									
Quantity	-	36	100	-	100	-	-	-	-
Total Obligation Authority	-	5.050	13.995	-	13.995	-	-	-	-
Total:									
Secondary Distribution									
Quantity	-	36	100	-	100	-	-	-	-
Total Obligation Authority	-	5.050	13.995	-	13.995	-	-	-	-

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity:
 2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 10:
 Chemical Defensive Equipment **P-1 Line Item Number / Title:**
 6230MX0600 / Smoke & Obscurant Family: SOF (Non AAO Item)

ID Code (A=Service Ready, B=Not Service Ready): **Program Elements for Code B Items:** N/A **Other Related Program Elements:** N/A

Line Item MDAP/MAIS Code: N/A

Exhibits Schedule					Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-5	MX1000 / FAMILY OF TACTICAL OBSCURATION DEVICES	P-5a, P-21			- / 11.297	- / -	36 / 5.050	100 / 13.995	- / -	100 / 13.995
P-40	Total Gross/Weapon System Cost				- / 11.297	- / -	36 / 5.050	100 / 13.995	- / -	100 / 13.995

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

Justification:
 The FY 2021 Base dollars funds the procurement and fielding of 100 SOM systems. The SOM will increase survivability and soldier protection levels of maneuver forces by replacing 1930s technology that are still deployed but are no longer in production due to inadequate obscuration capability and significant health/safety risks to the warfighter. The SOM's technology can support future bi-spectral and multispectral screening requirements suitable to defeat hi-tech weapons while the existing technology is limited to visual to near IR screening.

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army													Date: February 2020					
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 10						P-1 Line Item Number / Title: 6230MX0600 / Smoke & Obscurant Family: SOF (Non AAO Item)						Item Number / Title [DODIC]: MX1000 / FAMILY OF TACTICAL OBSCURATION DEVICES						
ID Code (A=Service Ready, B=Not Service Ready) :									MDAP/MAIS Code:									
Resource Summary				Prior Years		FY 2019		FY 2020		FY 2021 Base		FY 2021 OCO		FY 2021 Total				
Procurement Quantity (Units in Each)				-		-		36		100		-		100				
Gross/Weapon System Cost (\$ in Millions)				11.297		-		5.050		13.995		-		13.995				
Less PY Advance Procurement (\$ in Millions)				-		-		-		-		-		-				
Net Procurement (P-1) (\$ in Millions)				11.297		-		5.050		13.995		-		13.995				
Plus CY Advance Procurement (\$ in Millions)				-		-		-		-		-		-				
Total Obligation Authority (\$ in Millions)				11.297		-		5.050		13.995		-		13.995				
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>																		
Initial Spares (\$ in Millions)				-		-		-		-		-		-		-		
Gross/Weapon System Unit Cost (\$ in Thousands)				-		-		140.278		139.950		-		139.950				
Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.																		
Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
Hardware Cost																		
Recurring Cost																		
SOM DEVICES ^(†)	-	-	-	-	-	-	105.000	36	3.780	100.000	100	10.000	-	-	-	100.000	100	10.000
<i>Subtotal: Recurring Cost</i>	-	-	-	-	-	-	-	-	3.780	-	-	10.000	-	-	-	-	-	10.000
<i>Subtotal: Hardware Cost</i>	-	-	-	-	-	-	-	-	3.780	-	-	10.000	-	-	-	-	-	10.000
Package Fielding Cost																		
Recurring Cost																		
SOM Device Fielding	-	-	-	-	-	-	-	-	-	-	-	2.000	-	-	-	-	-	2.000
<i>Subtotal: Recurring Cost</i>	-	-	-	-	-	-	-	-	-	-	-	2.000	-	-	-	-	-	2.000
<i>Subtotal: Package Fielding Cost</i>	-	-	-	-	-	-	-	-	-	-	-	2.000	-	-	-	-	-	2.000
Support - Program Management Cost																		
Government Management	-	-	11.297	-	-	-	-	-	1.270	-	-	1.995	-	-	-	-	-	1.995
<i>Subtotal: Support - Program Management Cost</i>	-	-	11.297	-	-	-	-	-	1.270	-	-	1.995	-	-	-	-	-	1.995
Gross/Weapon System Cost	-	-	11.297	-	-	-	140.278	36	5.050	139.950	100	13.995	-	-	-	139.950	100	13.995
Secondary Distribution				FY 2019		FY 2020		FY 2021 Base		FY 2021 OCO		FY 2021 Total						
Army	Quantity			-		36		100		-		100						

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 10	P-1 Line Item Number / Title: 6230MX0600 / Smoke & Obscurant Family: SOF (Non AAO Item)	Item Number / Title [DODIC]: MX1000 / FAMILY OF TACTICAL OBSCURATION DEVICES

ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:
---------------------------------------------------------	------------------------

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
	Total Obligation Authority	-	5.050	13.995	-	13.995
Total:	Quantity	-	36	100	-	100
Secondary Distribution	Total Obligation Authority	-	5.050	13.995	-	13.995

(t) indicates the presence of a P-5a

UNCLASSIFIED

Exhibit P-5a, Procurement History and Planning: PB 2021 Army							Date: February 2020					
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 10			P-1 Line Item Number / Title: 6230MX0600 / Smoke & Obscurant Family: SOF (Non AAO Item)				Item Number / Title [DODIC]: MX1000 / FAMILY OF TACTICAL OBSCURATION DEVICES					

Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty <i>(Each)</i>	Unit Cost <i>(\$ K)</i>	Specs Avail Now?	Date Revision Available	RFP Issue Date
SOM DEVICES ^(†)		2020	L3 Harris / Salt Lake City, UT	Option / FPIS	APG, Maryland	Jun 2020	Oct 2020	36	105.000	N		Dec 2019
SOM DEVICES ^(†)		2021	L3 Harris / Salt Lake City, UT	Option / FFP	APG, Maryland	Dec 2020	Apr 2021	100	100.000	N		Oct 2020

^(†) indicates the presence of a P-21

UNCLASSIFIED

Exhibit P-21, Production Schedule: PB 2021 Army															Date: February 2020														
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 10										P-1 Line Item Number / Title: 6230MX0600 / Smoke & Obscurant Family: SOF (Non AAO Item)										Item Number / Title [DODIC]: MX1000 / FAMILY OF TACTICAL OBSCURATION DEVICES									

Cost Elements <i>(Units in Each)</i>						Fiscal Year 2022												Fiscal Year 2023												BALANCE	
O C C #	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2021	BAL DUE AS OF 1 OCT	Calendar Year 2022												Calendar Year 2023												
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G		S E P

SOM DEVICES																															
1	2020	ARMY		36	36	0																									0
1	2021	ARMY		100	60	40	10	10	10	10																					0

							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P
--	--	--	--	--	--	--	-------------	-------------	-------------	-------------	-------------	-------------	-------------	-------------	-------------	-------------	-------------	-------------	-------------	-------------	-------------	-------------	-------------	-------------	-------------	-------------	-------------	-------------	-------------	-------------

UNCLASSIFIED

Exhibit P-21, Production Schedule: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 10		P-1 Line Item Number / Title: 6230MX0600 / Smoke & Obscurant Family: SOF (Non AAO Item)
		Item Number / Title [DODIC]: MX1000 / FAMILY OF TACTICAL OBSCURATION DEVICES

MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Month)			Procurement Leadtime (Months)							
		MSR For 2021	1-8-5 For 2021	MAX For 2021	Initial				Reorder			
					ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1	ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1
1	L3 Harris - Salt Lake City, UT	4	10	100	0	0	4	4	0	0	0	0

"A" in the Delivery Schedule indicates the Contract Award Date.

Note: Due to space limitations, quantities in the Exhibit P-21 delivery calendar are truncated and rounded based on the maximum quantity in the calendar as follows. If the maximum quantity is less than or equal to than 9,999, all quantities are shown as each. If the maximum quantity is between 10,000 and 999,999 all quantities are shown in thousands. If the maximum quantity is between 1,000,000 and 999,999,999 all quantities are shown in millions (rounded to the nearest thousand). If the maximum quantity is equal or greater than 1,000,000,000 all quantities are shown in billions (rounded to the nearest million).

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 15: Bridging Equipment	P-1 Line Item Number / Title: 2831MX0100 / Tactical Bridging
------------------------------------------------------------------------------------------------------------------------------------------------------------------	------------------------------------------------------------------------

ID Code (A=Service Ready, B=Not Service Ready): B	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
---------------------------------------------------	----------------------------------------	-------------------------------------

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	31	76	52	4	21	25	4	6	-	-	-	194
Gross/Weapon System Cost (<i>\$ in Millions</i>)	82.420	81.219	64.705	10.545	50.400	60.945	10.533	13.516	-	-	-	313.338
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	82.420	81.219	64.705	10.545	50.400	60.945	10.533	13.516	-	-	-	313.338
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	82.420	81.219	64.705	10.545	50.400	60.945	10.533	13.516	-	-	-	313.338

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Thousands</i>)	2,658.710	1,068.671	1,244.327	2,636.250	2,400.000	2,437.800	2,633.250	2,252.667	-	-	-	1,615.144

Description:

The Line of Communication Bridge (LOCB) facilitates sustainment of widely dispersed forces over a large area of operation. The LOCB restores and maintains line of communication routes in theater, supporting both civilian and military traffic. As such, the LOCB facilitates the uninterrupted flow of forces, equipment, personnel and supplies for sustained ground operations for the warfighter, Allied, Coalition and host nation forces, and displaced civilians. Prior LOCB assets were fielded in 80 Tracked (T) /110 Wheeled (W) Military Load Classification (MLC). Future LOCB assets will utilize 120 Tracked (T) /150 Wheeled (W) Military Load Classification (MLC) for FY19 and beyond production to accommodate increased Army vehicle weight requirements.

The LOCB system provides a 50 meter dry gap crossing capability and a 130 meter wet gap crossing capability to the Multi-Role Bridge Company (MRBC). The LOCB 50 meter dry gap system will include bridge components, ramps, pier sets and associated equipment. The 130 meter float LOCB system will consist of the same bridge components as the 50 meter LOCB as well as additional items to support wet-gap crossing to include pontoons and associated equipment. Dry and wet gap spans can be linked together to accommodate various crossing lengths. FY18, 19 20, and 21 procurement funding will be used in support of All Thing Pacific ONS 18-22760 and All Things Europe requirements. Program of Record production will begin in FY22. The Program of Record requirement is 10 training sets of 50 meter fixed LOCBs and 2 training sets of 130 meter floating LOCB.

LOCB All Things Pacific ONS Requirement: 198
 LOCB All Things Europe ONS Requirement: 46
 LOCB Army Acquisition Objective (AAO): 12

NOTE: FY19 and FY20 P40 quantities are not correct and should reflect FY19 production of 82 bridge sets and FY20 production of 48 bridge sets. Program quantities, cost and production information is correctly indicated on P5 and P21.

Secondary Distribution	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
Army									
Quantity	76	52	4	21	25	4	6	-	-
Total Obligation Authority	81.219	64.705	10.545	50.400	60.945	10.533	13.516	-	-

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 15: Bridging Equipment	P-1 Line Item Number / Title: 2831MX0100 / Tactical Bridging
------------------------------------------------------------------------------------------------------------------------------------------------------------------	------------------------------------------------------------------------

ID Code (A=Service Ready, B=Not Service Ready): B	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
----------------------------------------------------------	-----------------------------------------------	--------------------------------------------

Line Item MDAP/MAIS Code: N/A

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
Total:	Quantity	76	52	4	21	25	4	6	-	-
Secondary Distribution	Total Obligation Authority	81.219	64.705	10.545	50.400	60.945	10.533	13.516	-	-

--	--	--	--	--	--	--	--	--	--	--

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 15: Bridging Equipment **P-1 Line Item Number / Title:** 2831MX0100 / Tactical Bridging

ID Code (A=Service Ready, B=Not Service Ready): B **Program Elements for Code B Items:** N/A **Other Related Program Elements:** N/A

Line Item MDAP/MAIS Code: N/A

Exhibits Schedule					Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-5	G82404 / LINE OF COMMUNICATION BRIDGE LOCB	P-5a, P-21			31 / 82.420	76 / 81.219	52 / 64.705	4 / 10.545	21 / 50.400	25 / 60.945
P-40	Total Gross/Weapon System Cost				31 / 82.420	76 / 81.219	52 / 64.705	4 / 10.545	21 / 50.400	25 / 60.945

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

Justification:
 FY 21 Base procurement dollars in the amount of \$10.545 million support the procurement of 3ea Commercial dry and 1ea wet gap 120 Tracked/150 Wheeled MLC LOCB sets in support of ONS Bridging Requirements.

 FY 21 OCO procurement dollars in the amount of \$50.400 million support the procurement of 15ea Commercial dry and 6ea wet gap 120 Tracked/150 Wheeled MLC LOCB sets in support of ONS Bridging Requirements.

 The LOCB system provides the United States Army with an enhanced support bridging capability to replace the obsolete, 1940s era Bailey Bridge (BB).

 NOTE: FY19 and FY20 P40 quantities are not correct and should reflect FY19 production of 82 bridge sets and FY20 production of 48 bridge sets. Program quantities, cost and production information is correctly indicated on P5 and P21.

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 15	P-1 Line Item Number / Title: 2831MX0100 / Tactical Bridging	Item Number / Title [DODIC]: G82404 / LINE OF COMMUNICATION BRIDGE LOCB

ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:
---------------------------------------------------------	------------------------

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Procurement Quantity (<i>Units in Each</i>)	31	76	52	4	21	25
Gross/Weapon System Cost (<i>\$ in Millions</i>)	82.420	81.219	64.705	10.545	50.400	60.945
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	82.420	81.219	64.705	10.545	50.400	60.945
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	82.420	81.219	64.705	10.545	50.400	60.945

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Thousands</i>)	2,658.710	1,068.671	1,244.327	2,636.250	2,400.000	2,437.800

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
Flyaway Cost																		
Recurring Cost																		
All Things Pacific - ONS Commercial LOCB 50m Dry MLC120/150 Spans ^(f)	-	-	-	850.000	44	37.400	1,000.000	16	16.000	-	-	-	-	-	-	-	-	-
All Things Pacific - ONS Commercial LOCB 40m Wet MLC120/150 Spans ^(f)	-	-	-	975.000	37	36.075	1,230.000	25	30.750	-	-	-	-	-	-	-	-	-
All Things Europe - ONS Commercial LOCB 50m Dry MLC120/150 Spans ^(f)	-	-	-	-	-	-	1,150.000	5	5.750	1,240.000	3	3.720	1,240.000	15	18.600	1,240.000	18	22.320
All Things Europe - ONS Commercial LOCB 130m Wet MLC120/150 Spans ^(f)	-	-	-	4,559.000	1	4.559	5,300.000	2	10.600	5,300.000	1	5.300	5,300.000	6	31.800	5,300.000	7	37.100
System Engineering/ Program Management	-	-	3.570	-	-	0.940	-	-	0.956	-	-	0.977	-	-	-	-	-	0.977
Tech Manual Development	-	-	-	-	-	2.000	-	-	-	-	-	-	-	-	-	-	-	-
FDT	-	-	0.400	-	-	0.050	-	-	0.062	-	-	0.079	-	-	-	-	-	0.079
Fielding	-	-	0.763	-	-	0.195	-	-	0.200	-	-	0.300	-	-	-	-	-	0.300
Subtotal: Recurring Cost	-	-	4.733	-	-	81.219	-	-	64.318	-	-	10.376	-	-	50.400	-	-	60.776

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 15	P-1 Line Item Number / Title: 2831MX0100 / Tactical Bridging	Item Number / Title [DODIC]: G82404 / LINE OF COMMUNICATION BRIDGE LOCB

ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:
---------------------------------------------------------	------------------------

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
<i>Subtotal: Flyaway Cost</i>	-	-	4.733	-	-	81.219	-	-	64.318	-	-	10.376	-	-	50.400	-	-	60.776
Hardware Cost																		
Non Recurring Cost																		
Prior Acquisition Strategy - LOCB Fixed Bridge	-	-	47.741	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
All Things Pacific - ONS Commercial LOCB 40m MLC80/110 Spans	809.351	37	29.946	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LOCB MLC120/150 Test Asset Overhauls (2x130m Wet Gaps)	-	-	-	-	-	-	-	-	0.387	-	-	0.169	-	-	-	-	-	0.169
<i>Subtotal: Non Recurring Cost</i>	-	-	77.687	-	-	-	-	-	0.387	-	-	0.169	-	-	-	-	-	0.169
<i>Subtotal: Hardware Cost</i>	-	-	77.687	-	-	-	-	-	0.387	-	-	0.169	-	-	-	-	-	0.169
Gross/Weapon System Cost	2,658.710	31	82.420	1,068.671	76	81.219	1,244.327	52	64.705	2,636.250	4	10.545	2,400.000	21	50.400	2,437.800	25	60.945

Remarks:
 LOCB FY20 costs projected to increase as production changes from a Military Load Capacity (MLC) Bridge of 80 tracked / 110 wheeled to a MLC Bridge of 120 tracked / 150 wheeled. The higher load capacity bridge required additional material increasing the cost of both dry and wet gap bridges.

 LOCB FY21 cost structure updated to reflect standard Wet Gap purchases in 130m spans vs 40m spans.

 M3 Container Roll-In/Out Platforms are no longer purchased independently of LOCB hardware.

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Army	Quantity	76	52	4	21	25
	Total Obligation Authority	81.219	64.705	10.545	50.400	60.945
Total: Secondary Distribution	Quantity	76	52	4	21	25
	Total Obligation Authority	81.219	64.705	10.545	50.400	60.945

(t) indicates the presence of a P-5a

UNCLASSIFIED

Exhibit P-5a, Procurement History and Planning: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 15	P-1 Line Item Number / Title: 2831MX0100 / Tactical Bridging	Item Number / Title [DODIC]: G82404 / LINE OF COMMUNICATION BRIDGE LOCB
----------------------------------------------------------------------------------	------------------------------------------------------------------------	-----------------------------------------------------------------------------------

Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty (Each)	Unit Cost (\$ K)	Specs Avail Now?	Date Revision Available	RFP Issue Date
All Things Pacific - ONS Commercial LOCB 50m Dry MLC120/150 Spans		2019	Acrow Corporation of America / Parsippany, NJ	C / FFP	TACOM, Warren, MI	Jun 2019	Aug 2019	44	850.000	Y		
All Things Pacific - ONS Commercial LOCB 50m Dry MLC120/150 Spans		2020	TBD / TBD	C / FFP	TACOM, Warren, MI	Feb 2020	Apr 2020	16	1,000.000	Y		
All Things Pacific - ONS Commercial LOCB 40m Wet MLC120/150 Spans		2019	Mabey Bridge & Shore, Inc / Lydney, England	C / FFP	TACOM, Warren, MI	Feb 2019	Apr 2019	10	1,270.800	Y		
All Things Pacific - ONS Commercial LOCB 40m Wet MLC120/150 Spans		2019	Acrow Corporation of America / Parsippany, NJ	C / FFP	TACOM, Warren, MI	Feb 2019	Apr 2019	27	860.777	Y		
All Things Pacific - ONS Commercial LOCB 40m Wet MLC120/150 Spans		2020	TBD / TBD	C / FFP	TACOM, Warren, MI	Feb 2020	Apr 2020	25	1,230.000	Y		
All Things Europe - ONS Commercial LOCB 50m Dry MLC120/150 Spans ^(†)		2020	TBD / TBD	C / FFP	TACOM, Warren, MI	Feb 2020	Apr 2020	5	1,150.000	Y		
All Things Europe - ONS Commercial LOCB 50m Dry MLC120/150 Spans ^(†)		2021	TBD / TBD	C / FFP	TACOM, Warren, MI	Feb 2021	Apr 2021	3	1,240.000	Y		
All Things Europe - ONS Commercial LOCB 50m Dry MLC120/150 Spans	✓	2021	TBD / TBD	C / FFP	TACOM, Warren, MI	Feb 2021	Apr 2021	15	1,240.000	Y		
All Things Europe - ONS Commercial LOCB 130m Wet MLC120/150 Spans ^(†)		2019	Acrow Corporation of America / Parsippany, NJ	C / FFP	TACOM, Warren, MI	Feb 2019	Apr 2019	1	4,559.000	Y		
All Things Europe - ONS Commercial LOCB 130m Wet MLC120/150 Spans ^(†)		2020	TBD / TBD	C / FFP	TACOM, Warren, MI	Feb 2020	Apr 2020	2	5,300.000	Y		
All Things Europe - ONS Commercial LOCB 130m Wet MLC120/150 Spans ^(†)		2021	TBD / TBD	C / FFP	TACOM, Warren, MI	Feb 2021	Apr 2021	1	5,300.000	Y		
All Things Europe - ONS Commercial LOCB 130m Wet MLC120/150 Spans	✓	2021	TBD / TBD	C / FFP	TACOM, Warren, MI	Feb 2021	Apr 2021	6	5,300.000	Y		

^(†) indicates the presence of a P-21

Remarks:

UNCLASSIFIED

Exhibit P-5a, Procurement History and Planning: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 15	P-1 Line Item Number / Title: 2831MX0100 / Tactical Bridging	Item Number / Title [DODIC]: G82404 / LINE OF COMMUNICATION BRIDGE LOCB

FY21 All Things Europe - ONS Commercial LOCB 130m Wet MLC120/150 Spans cost increase due to European transportability packaging configuration requirement maximizing use of 20ft ISO containers and 20ft float barges vs. more cost effective 40ft ISO containers and fewer required 40ft float barges as previously purchased.

UNCLASSIFIED

Exhibit P-21, Production Schedule: PB 2021 Army															Date: February 2020														
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 15										P-1 Line Item Number / Title: 2831MX0100 / Tactical Bridging										Item Number / Title [DODIC]: G82404 / LINE OF COMMUNICATION BRIDGE LOCB									

Cost Elements <i>(Units in Each)</i>						Fiscal Year 2021														Fiscal Year 2022														BALANCE		
O C C #	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2020	BAL DUE AS OF 1 OCT	Calendar Year 2021														Calendar Year 2022															
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P						
All Things Europe - ONS Commercial LOCB 50m Dry MLC120/150 Spans																																				
1		2020	ARMY	5	5	0																														0
1		2021	ARMY	3	0	3																														0
All Things Europe - ONS Commercial LOCB 130m Wet MLC120/150 Spans																																				
3		2019	ARMY	1	1	0																													0	
2		2020	ARMY	2	2	0																													0	
2		2021	ARMY	1	0	1																													0	
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P						

UNCLASSIFIED

Exhibit P-21, Production Schedule: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 15		P-1 Line Item Number / Title: 2831MX0100 / Tactical Bridging
		Item Number / Title [DODIC]: G82404 / LINE OF COMMUNICATION BRIDGE LOCB

MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Month)			Procurement Leadtime (Months)								
		MSR For 2021	1-8-5 For 2021	MAX For 2021	Initial				Reorder				
					ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1	ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1	
1	TBD - TBD	1	8	20	0	0	0	0	0	1	0	1	1
2	TBD - TBD	1	8	20	0	0	0	0	0	1	0	1	1
3	Acrow Corporation of America - Parsippany, NJ	1	10	24	10	0	3	3	3	1	0	1	1

Remarks:

n/a

"A" in the Delivery Schedule indicates the Contract Award Date.

Note: Due to space limitations, quantities in the Exhibit P-21 delivery calendar are truncated and rounded based on the maximum quantity in the calendar as follows. If the maximum quantity is less than or equal to than 9,999, all quantities are shown as each. If the maximum quantity is between 10,000 and 999,999 all quantities are shown in thousands. If the maximum quantity is between 1,000,000 and 999,999,999 all quantities are shown in millions (rounded to the nearest thousand). If the maximum quantity is equal or greater than 1,000,000,000 all quantities are shown in billions (rounded to the nearest million).

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 15: Bridging Equipment	P-1 Line Item Number / Title: 3542MA8890 / Tactical Bridge, Float-Ribbon
------------------------------------------------------------------------------------------------------------------------------------------------------------------	------------------------------------------------------------------------------------

ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
----------------------------------------------------------	-----------------------------------------------	--------------------------------------------

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	55	84	70	87	-	87	78	-	-	-	-	374
Gross/Weapon System Cost (<i>\$ in Millions</i>)	223.695	55.145	57.661	72.074	-	72.074	66.912	-	-	-	-	475.487
Less PY Advance Procurement (<i>\$ in Millions</i>)	22.181	-	-	-	-	-	-	-	-	-	-	22.181
Net Procurement (P-1) (<i>\$ in Millions</i>)	201.514	55.145	57.661	72.074	-	72.074	66.912	-	-	-	-	453.306
Plus CY Advance Procurement (<i>\$ in Millions</i>)	22.181	-	-	-	-	-	-	-	-	-	-	22.181
Total Obligation Authority (<i>\$ in Millions</i>)	223.695	55.145	57.661	72.074	-	72.074	66.912	-	-	-	-	475.487

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Thousands</i>)	4,067.182	656.488	823.729	828.437	-	828.437	857.846	-	-	-	-	1,271.356

Description:

The Tactical Bridge Float-Ribbon line supports the Army's Multi-Role Bridging Companies (MRBCs). One Tactical Float Ribbon Bridge System consists of Improved Ribbon Bridge (IRB) bays (30 Interior and 12 Ramp), 14 Propulsion, Bridge Erection Boats (BEBs) and 56 Common Bridge Transporters (CBTs). These components are required to transport, launch, erect and retrieve up to 210 meters of floating bridge. The IRB has a Military Load Classification (MLC) 96 wheeled (normal) and 110 (caution)/MLC 70 tracked (normal) and 85 (caution) and is used to transport weapon systems, Troops and supplies over water when permanent bridges are not available. This capability will support the Joint Force Commander's ability to employ and sustain forces throughout the global battlespace.

The Propulsion, Bridge Erection Boat (BEB) Army Acquisition Objective (AAO) is 435.

IRB Interior Bays AAO: 1128

IRB Ramp Bays AAO: 454

	Secondary Distribution	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
Army	Quantity	17	14	-	-	-	30	-	-	-
	Total Obligation Authority	13.906	19.701	0.201	-	0.201	27.257	-	-	-
ANG	Quantity	28	28	56	-	56	28	-	-	-
	Total Obligation Authority	23.132	14.828	46.263	-	46.263	23.132	-	-	-
AR	Quantity	39	28	31	-	31	20	-	-	-
	Total Obligation Authority	18.107	23.132	25.610	-	25.610	16.523	-	-	-
Total: Secondary Distribution	Quantity	84	70	87	-	87	78	-	-	-
	Total Obligation Authority	55.145	57.661	72.074	-	72.074	66.912	-	-	-

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 15: Bridging Equipment **P-1 Line Item Number / Title:** 3542MA8890 / Tactical Bridge, Float-Ribbon

ID Code (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** N/A **Other Related Program Elements:** N/A

Line Item MDAP/MAIS Code: N/A

Exhibits Schedule					Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-5	M27200 / BRIDGE, FLOAT-RIBBON, PROPULSION	P-5a, P-21	A		55 / 223.695	84 / 55.145	70 / 57.661	87 / 72.074	- / -	87 / 72.074
P-40	Total Gross/Weapon System Cost				55 / 223.695	84 / 55.145	70 / 57.661	87 / 72.074	- / -	87 / 72.074

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

Justification:
 FY 2021 Base procurement dollars in the amount of \$72.074 million supports the procurement of 87 Propulsion, Bridge Erection Boats (BEBs) for Army National Guard and Army Reserve requirements.
 Note: The newly designed BEB will improve fleet readiness by improving the basic design to meet current survivability, transportability, and interoperability requirements. Funding supports a balanced investment strategy for the Army's approved force structure and Army Force Generation (ARFORGEN) requirements.
 In accordance with Section 1815 of the FY 2008 National Defense Authorization Act (P.L. 110-181), this item is necessary for use by the active and reserve components of the Armed Forces for homeland defense missions, domestic emergency responses, and providing military support to civil authorities.

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 15	P-1 Line Item Number / Title: 3542MA8890 / Tactical Bridge, Float-Ribbon	Item Number / Title [DODIC]: M27200 / BRIDGE, FLOAT-RIBBON, PROPULSION

ID Code (A=Service Ready, B=Not Service Ready) : A	MDAP/MAIS Code:
-----------------------------------------------------------	------------------------

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Procurement Quantity (Units in Each)	55	84	70	87	-	87
Gross/Weapon System Cost (\$ in Millions)	223.695	55.145	57.661	72.074	-	72.074
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	223.695	55.145	57.661	72.074	-	72.074
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	223.695	55.145	57.661	72.074	-	72.074

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (\$ in Millions)	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Thousands)	4,067.182	656.488	823.729	828.437	-	828.437

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
Flyaway Cost																		
Recurring Cost																		
BEB + CPK Hardware ^(†)	1,354.909	121	163.944	703.657	67	47.145	717.600	70	50.232	731.069	87	63.603	-	-	-	731.069	87	63.603
Bridge Adapter Pallet ^(†)	49.174	121	5.950	54.045	67	3.621	55.114	70	3.858	55.126	87	4.796	-	-	-	55.126	87	4.796
Fielding	-	-	1.882	-	-	2.022	-	-	1.281	-	-	1.293	-	-	-	-	-	1.293
System Test & Evaluation, Production	-	-	16.776	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
System Engineering/ Program Management	-	-	14.549	-	-	1.340	-	-	1.487	-	-	1.520	-	-	-	-	-	1.520
Engineering Changes	-	-	6.943	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
First Destination Transportation - FDT	-	-	2.740	-	-	1.017	-	-	0.803	-	-	0.862	-	-	-	-	-	0.862
Subtotal: Recurring Cost	-	-	212.784	-	-	55.145	-	-	57.661	-	-	72.074	-	-	-	-	-	72.074
Non Recurring Cost																		
Data	-	-	10.911	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Non Recurring Cost	-	-	10.911	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Flyaway Cost	-	-	223.695	-	-	55.145	-	-	57.661	-	-	72.074	-	-	-	-	-	72.074
Gross/Weapon System Cost	4,067.182	55	223.695	656.488	84	55.145	823.729	70	57.661	828.437	87	72.074	-	-	-	828.437	87	72.074

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 15	P-1 Line Item Number / Title: 3542MA8890 / Tactical Bridge, Float-Ribbon	Item Number / Title [DODIC]: M27200 / BRIDGE, FLOAT-RIBBON, PROPULSION

ID Code (A=Service Ready, B=Not Service Ready) : A	MDAP/MAIS Code:
-----------------------------------------------------------	------------------------

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Army	Quantity	17	14	-	-	-
	Total Obligation Authority	13.906	19.701	0.201	-	0.201
ANG	Quantity	28	28	56	-	56
	Total Obligation Authority	23.132	14.828	46.263	-	46.263
AR	Quantity	39	28	31	-	31
	Total Obligation Authority	18.107	23.132	25.610	-	25.610
Total:	Quantity	84	70	87	-	87
Secondary Distribution	Total Obligation Authority	55.145	57.661	72.074	-	72.074

(t) indicates the presence of a P-5a

UNCLASSIFIED

Exhibit P-5a, Procurement History and Planning: PB 2021 Army							Date: February 2020					
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 15			P-1 Line Item Number / Title: 3542MA8890 / Tactical Bridge, Float-Ribbon				Item Number / Title [DODIC]: M27200 / BRIDGE, FLOAT-RIBBON, PROPULSION					

Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty <i>(Each)</i>	Unit Cost <i>(\$ K)</i>	Specs Avail Now?	Date Revision Available	RFP Issue Date
BEB + CPK Hardware ^(†)		2019	Birdon America Inc / Denver, CO	C / FFP	TACOM, Warren, MI	Dec 2018	Jun 2019	67	703.657	Y		
BEB + CPK Hardware ^(†)		2020	Birdon America Inc / Denver, CO	C / FFP	TACOM, Warren, MI	Dec 2019	Jun 2020	70	717.600	Y		
BEB + CPK Hardware ^(†)		2021	Birdon America Inc / Denver, CO	C / FFP	TACOM, Warren, MI	Dec 2020	Jun 2021	87	731.069	Y		
Bridge Adapter Pallet		2019	CANADIAN COMMERCIAL CORPORATIO / Ottawa, Canada	C / FFP	TACOM, Warren, MI	Dec 2018	Apr 2019	67	54.045	Y		
Bridge Adapter Pallet		2020	CANADIAN COMMERCIAL CORPORATIO / Ottawa, Canada	C / FFP	TACOM, Warren, MI	Dec 2019	Apr 2020	70	55.114	Y		
Bridge Adapter Pallet		2021	CANADIAN COMMERCIAL CORPORATIO / Ottawa, Canada	C / FFP	TACOM, Warren, MI	Dec 2020	Apr 2021	87	55.126	Y		

^(†) indicates the presence of a P-21

UNCLASSIFIED

Exhibit P-21, Production Schedule: PB 2021 Army															Date: February 2020														
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 15										P-1 Line Item Number / Title: 3542MA8890 / Tactical Bridge, Float-Ribbon										Item Number / Title [DODIC]: M27200 / BRIDGE, FLOAT-RIBBON, PROPULSION									

Cost Elements <i>(Units in Each)</i>						Fiscal Year 2019														Fiscal Year 2020														BALANCE	
O C C #	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2018	BAL DUE AS OF 1 OCT	Calendar Year 2019														Calendar Year 2020														
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P					
BEB + CPK Hardware																																			
Prior Years Deliveries: 121																																			
	1	2019	ARMY	67	0	67			A	-	-	-	-	-	-	5	5	5	5	5	6	6	6	6	6	6	6	6	0						
	1	2020	ARMY	70	0	70																						6	6	6	6	46			
	1	2021	ARMY	87	0	87																									87				

UNCLASSIFIED

Exhibit P-21, Production Schedule: PB 2021 Army															Date: February 2020														
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 15										P-1 Line Item Number / Title: 3542MA8890 / Tactical Bridge, Float-Ribbon										Item Number / Title [DODIC]: M27200 / BRIDGE, FLOAT-RIBBON, PROPULSION									

Cost Elements <i>(Units in Each)</i>						Fiscal Year 2021													Fiscal Year 2022													BALANCE	
O C C #	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2020	BAL DUE AS OF 1 OCT	Calendar Year 2021													Calendar Year 2022													
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P			

BEB + CPK Hardware

Prior Years Deliveries: 121																													
1	2019	ARMY	67	67	0																								0
1	2020	ARMY	70	24	46	6	6	6	6	6	6	5	5																0
1	2021	ARMY	87	0	87			A	-	-	-	-	-	6	7	7	8	8	7	6	7	8	8	8	7				0
						O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P

UNCLASSIFIED

Exhibit P-21, Production Schedule: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 15		P-1 Line Item Number / Title: 3542MA8890 / Tactical Bridge, Float-Ribbon
Item Number / Title [DODIC]: M27200 / BRIDGE, FLOAT-RIBBON, PROPULSION		

MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Month)			Procurement Leadtime (Months)							
		MSR For 2021	1-8-5 For 2021	MAX For 2021	Initial				Reorder			
					ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1	ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1
1	Birdon America Inc - Denver, CO	2	6	8	0	9	12	21	0	5	6	11

"A" in the Delivery Schedule indicates the Contract Award Date.

Note: Due to space limitations, quantities in the Exhibit P-21 delivery calendar are truncated and rounded based on the maximum quantity in the calendar as follows. If the maximum quantity is less than or equal to than 9,999, all quantities are shown as each. If the maximum quantity is between 10,000 and 999,999 all quantities are shown in thousands. If the maximum quantity is between 1,000,000 and 999,999,999 all quantities are shown in millions (rounded to the nearest thousand). If the maximum quantity is equal or greater than 1,000,000,000 all quantities are shown in billions (rounded to the nearest million).

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 15: Bridging Equipment	P-1 Line Item Number / Title: 3758G06520 / BRIDGE SUPPLEMENTAL SET
------------------------------------------------------------------------------------------------------------------------------------------------------------------	------------------------------------------------------------------------------

ID Code (A=Service Ready, B=Not Service Ready):	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
--------------------------------------------------------	-----------------------------------------------	--------------------------------------------

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	11	19	-	19	31	-	-	-	-	61
Gross/Weapon System Cost (<i>\$ in Millions</i>)	3.967	-	17.966	32.493	-	32.493	43.987	-	-	-	-	98.413
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	3.967	-	17.966	32.493	-	32.493	43.987	-	-	-	-	98.413
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	3.967	-	17.966	32.493	-	32.493	43.987	-	-	-	-	98.413

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Thousands</i>)	-	-	1,633.273	1,710.158	-	1,710.158	1,418.935	-	-	-	-	1,613.328

Description:

The Bridge Supplemental Set (BSS) provides increased capabilities to the Multi-Role Bridge Company (MRBC) in the areas of anchorage and site stability, as well as providing for needed power generation and tools. Anchorage is utilized to anchor float bridges such as the Improved Ribbon Bridge (IRB) for an extended period beyond 72 hours. Site stability enhances access/egress to and from the bridge site in less than desirable geography. Power generation and tools supports all subsystems during employment plus supports repairs on or to existing MRBC bridges. In certain operational environments, the BSS will be enhanced by a bridge protection device, which provides protection from debris upstream from any bridge site. The site stability, anchorage, generator and tools components will be transported on the equivalent of four or fewer M1077 flat racks by the Common Bridge Transporter (CBT). These BSS components will be issued two sets per MRBC plus training assets (58 total). The bridge protection device will be issued only to Army Prepositioned Stock (APS) units and to the training base (11 total).

The BSS Army Acquisition Objective (AAO) is 64.

Secondary Distribution	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
Army									
Quantity	-	9	5	-	5	7	-	-	-
Total Obligation Authority	-	17.784	31.221	-	31.221	41.806	-	-	-
ANG									
Quantity	-	-	10	-	10	10	-	-	-
Total Obligation Authority	-	-	0.909	-	0.909	0.909	-	-	-
AR									
Quantity	-	2	4	-	4	14	-	-	-
Total Obligation Authority	-	0.182	0.363	-	0.363	1.272	-	-	-
Total: Secondary Distribution	-	11	19	-	19	31	-	-	-
Total Obligation Authority	-	17.966	32.493	-	32.493	43.987	-	-	-

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity:
2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 15: Bridging Equipment

P-1 Line Item Number / Title:
3758G06520 / BRIDGE SUPPLEMENTAL SET

ID Code (A=Service Ready, B=Not Service Ready): **Program Elements for Code B Items:** N/A **Other Related Program Elements:** N/A

Line Item MDAP/MAIS Code: N/A

Exhibits Schedule					Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-5	G06520 / BRIDGE SUPPLEMENTAL SET	P-5a, P-21			- / 3.967	- / -	11 / 17.966	19 / 32.493	- / -	19 / 32.493
P-40	Total Gross/Weapon System Cost				- / 3.967	- / -	11 / 17.966	19 / 32.493	- / -	19 / 32.493

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

Justification:
FY 2021 Base procurement dollars in the amount of \$32.493 million will be used to manufacture, integrate and kit 19 sets of site stability, anchorage and generator + tools components of the Bridge Supplemental Sets (BSS), and procure 11 sets of bridge protection devices.

In accordance with Section 1815 of the FY 2008 National Defense Authorization Act (P.L. 110-181), this item is necessary for use by the active and reserve components of the Armed Forces for homeland defense missions, domestic emergency responses, and providing military support to civil authorities.

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 15	P-1 Line Item Number / Title: 3758G06520 / BRIDGE SUPPLEMENTAL SET	Item Number / Title [DODIC]: G06520 / BRIDGE SUPPLEMENTAL SET

ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:
---------------------------------------------------------	------------------------

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Procurement Quantity (Units in Each)	-	-	11	19	-	19
Gross/Weapon System Cost (\$ in Millions)	3.967	-	17.966	32.493	-	32.493
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	3.967	-	17.966	32.493	-	32.493
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	3.967	-	17.966	32.493	-	32.493

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (\$ in Millions)	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Thousands)	-	-	1,633.273	1,710.158	-	1,710.158

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
Flyaway Cost																		
Recurring Cost																		
Hardware ^(†)	-	-	-	-	-	-	1,225.000	11	13.475	1,247.474	19	23.702	-	-	-	1,247.474	19	23.702
System Engineering/Program Management	-	-	-	-	-	-	-	-	0.679	-	-	0.628	-	-	-	-	-	0.628
Fielding	-	-	-	-	-	-	-	-	0.825	-	-	1.425	-	-	-	-	-	1.425
First Destination Transportation - FDT	-	-	-	-	-	-	-	-	0.537	-	-	0.688	-	-	-	-	-	0.688
Tech Manual	-	-	-	-	-	-	-	-	2.450	-	-	-	-	-	-	-	-	-
Subtotal: Recurring Cost	-	-	-	-	-	-	-	-	17.966	-	-	26.443	-	-	-	-	-	26.443
Non Recurring Cost																		
Hardware - Bridge Protection Device ^(†)	-	-	-	-	-	-	-	-	-	550.000	11	6.050	-	-	-	550.000	11	6.050
Reprogrammed Funding - Change in Acquisition Strategy	-	-	3.967	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Non Recurring Cost	-	-	3.967	-	-	-	-	-	-	-	-	6.050	-	-	-	-	-	6.050
Subtotal: Flyaway Cost	-	-	3.967	-	-	-	-	-	17.966	-	-	32.493	-	-	-	-	-	32.493
Gross/Weapon System Cost	-	-	3.967	-	-	-	1,633.273	11	17.966	1,710.158	19	32.493	-	-	-	1,710.158	19	32.493

Remarks:

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 15	P-1 Line Item Number / Title: 3758G06520 / BRIDGE SUPPLEMENTAL SET	Item Number / Title [DODIC]: G06520 / BRIDGE SUPPLEMENTAL SET

ID Code (A=Service Ready, B=Not Service Ready) : **MDAP/MAIS Code:**
 Increased unit cost from FY2020 to FY2021 due to the fact that FY2021 includes the cost of the bridge protection device procurement, which is anticipated to be a single award for 11 sets in FY2021 only.

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Army	Quantity	-	9	5	-	5
	Total Obligation Authority	-	17.784	31.221	-	31.221
ANG	Quantity	-	-	10	-	10
	Total Obligation Authority	-	-	0.909	-	0.909
AR	Quantity	-	2	4	-	4
	Total Obligation Authority	-	0.182	0.363	-	0.363
Total:	Quantity	-	11	19	-	19
Secondary Distribution	Total Obligation Authority	-	17.966	32.493	-	32.493

(t) indicates the presence of a P-5a

UNCLASSIFIED

Exhibit P-5a, Procurement History and Planning: PB 2021 Army							Date: February 2020				
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 15			P-1 Line Item Number / Title: 3758G06520 / BRIDGE SUPPLEMENTAL SET				Item Number / Title [DODIC]: G06520 / BRIDGE SUPPLEMENTAL SET				

Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty <i>(Each)</i>	Unit Cost <i>(\$ K)</i>	Specs Avail Now?	Date Revision Available	RFP Issue Date
Hardware ^(†)		2020	Tobyhanna Army Depot (TYAD) / Tobyhanna, PA	WR	TACOM, Warren, MI	May 2020	May 2021	11	1,225.000	N		
Hardware ^(†)		2021	Tobyhanna Army Depot (TYAD) / Tobyhanna, PA	WR	TACOM, Warren, MI	May 2021	Mar 2022	19	1,247.474	N		
Hardware - Bridge Protection Device ^(†)		2021	TBD / TBD	C / FFP	TACOM, Warren, MI	Apr 2021	Sep 2021	11	550.000	N		Jul 2020

^(†) indicates the presence of a P-21

UNCLASSIFIED

Exhibit P-21, Production Schedule: PB 2021 Army															Date: February 2020														
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 15										P-1 Line Item Number / Title: 3758G06520 / BRIDGE SUPPLEMENTAL SET										Item Number / Title [DODIC]: G06520 / BRIDGE SUPPLEMENTAL SET									

Cost Elements <i>(Units in Each)</i>						Fiscal Year 2022														Fiscal Year 2023														BALANCE	
O C C #	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2021	BAL DUE AS OF 1 OCT	Calendar Year 2022														Calendar Year 2023														
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P					
Hardware																																			
1		2020	ARMY	11	5	6	1	1	1	1	1	1																					0		
1		2021	ARMY	19	0	19	-	-	-	-	-	1	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	1		0		
Hardware - Bridge Protection Device																																			
2		2021	ARMY	11	3	8	3	3	2																								0		
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P					

UNCLASSIFIED

Exhibit P-21, Production Schedule: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 15		P-1 Line Item Number / Title: 3758G06520 / BRIDGE SUPPLEMENTAL SET
		Item Number / Title [DODIC]: G06520 / BRIDGE SUPPLEMENTAL SET

MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Month)			Procurement Leadtime (Months)							
		MSR For 2021	1-8-5 For 2021	MAX For 2021	Initial				Reorder			
					ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1	ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1
1	Tobyhanna Army Depot (TYAD) - Tobyhanna, PA	1	2	4	0	6	6	12	0	3	6	9
2	TBD - TBD	1	3	6	3	6	6	12	0	2	4	6

Remarks:
 On 19 Jun 2019, the Milestone Decision Authority (MDA), PEO CS&CSS, signed an Acquisition Decision Memorandum (ADM) granting approval to use Tobyhanna Army Depot (TYAD) as the manufacturing source to produce the Bridge Supplemental Sets (BSS). The ADM was the result of a Make-or-Buy decision analysis for the BSS program. The bridge protection device components will be a separate competitive contract action awarded to a commercial vendor in FY2021.

"A" in the Delivery Schedule indicates the Contract Award Date.
Note: Due to space limitations, quantities in the Exhibit P-21 delivery calendar are truncated and rounded based on the maximum quantity in the calendar as follows. If the maximum quantity is less than or equal to than 9,999, all quantities are shown as each. If the maximum quantity is between 10,000 and 999,999 all quantities are shown in thousands. If the maximum quantity is between 1,000,000 and 999,999,999 all quantities are shown in millions (rounded to the nearest thousand). If the maximum quantity is equal or greater than 1,000,000,000 all quantities are shown in billions (rounded to the nearest million).

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 15: Bridging Equipment	P-1 Line Item Number / Title: 3974G07000 / Common Bridge Transporter (CBT) Recap
---------------------------------------------------------------------------------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------------

ID Code (A=Service Ready, B=Not Service Ready):	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
--------------------------------------------------------	-----------------------------------------------	--------------------------------------------

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	138	143	112	137	-	137	203	-	-	-	-	733
Gross/Weapon System Cost (<i>\$ in Millions</i>)	114.792	55.392	43.155	62.978	-	62.978	93.441	-	-	-	-	369.758
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	114.792	55.392	43.155	62.978	-	62.978	93.441	-	-	-	-	369.758
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	114.792	55.392	43.155	62.978	-	62.978	93.441	-	-	-	-	369.758

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Thousands</i>)	831.826	387.357	385.313	459.693	-	459.693	460.300	-	-	-	-	504.445

Description:

The M1977A4 Common Bridge Transporter (CBT) and M1064 Palletized Load System Trailer (PLST) are part of the Ribbon Bridge System. The CBT transports and launches the Bridge Erection Boat (BEB) and Improved Ribbon Bridge (IRB) Bays in the Multi-Role Bridge Company (MRBC) allowing Bridging formation assets to maintain pace with supported combat units. The CBT is also the transporter and launch vehicle for the Rapidly Emplaced Bridge System (REBS) supporting the 9 Stryker Brigade Combat Teams (SBCT) and 5 Airborne Companies. There are 27 MRBCs (56 each), 9 SBCTs (4 each), 5 Airborne Companies (2 each), 1 European Activity Set (EAS) (58 each), 2 Army Prepositioned Stock (APS) (56 each) and 24 CBTs in the training base.

The Army Acquisition Objective is 1704
The Army Procurement Objective is 1704

NOTE: Prior Years quantities are not correct and should reflect production of 315 CBT RECAPs. Program quantities, cost and production information is correctly indicated on P5 and P21.

Secondary Distribution	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
Army	Quantity	-	-	-	-	56	-	-	-
	Total Obligation Authority	-	-	-	-	28.000	-	-	-
ANG	Quantity	56	98	112	-	112	147	-	-
	Total Obligation Authority	26.288	37.761	51.486	-	51.486	65.441	-	-
AR	Quantity	87	14	25	-	25	-	-	-
	Total Obligation Authority	29.104	5.394	11.492	-	11.492	-	-	-
Total:	Quantity	143	112	137	-	137	203	-	-
Secondary Distribution	Total Obligation Authority	55.392	43.155	62.978	-	62.978	93.441	-	-

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 15: Bridging Equipment	P-1 Line Item Number / Title: 3974G07000 / Common Bridge Transporter (CBT) Recap
------------------------------------------------------------------------------------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------------

ID Code (A=Service Ready, B=Not Service Ready):	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
--------------------------------------------------------	-----------------------------------------------	--------------------------------------------

Line Item MDAP/MAIS Code: N/A

Exhibits Schedule					Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-5	G07000 / Common Bridge Transporter (CBT) Recap	P-5a, P-21			138 / 114.792	143 / 55.392	112 / 43.155	137 / 62.978	- / -	137 / 62.978
P-40	Total Gross/Weapon System Cost				138 / 114.792	143 / 55.392	112 / 43.155	137 / 62.978	- / -	137 / 62.978

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

Justification:
 FY 2021 Base procurement dollars in the amount of \$62.978 million supports the recapitalization of 137 Common Bridge Transporters. The currently fielded M1977A0 and M1977A2 CBTs have significant obsolescence issues due to a lack of crew survivability, electrical, and powertrain supportability. The M1977A4 provides the Soldier with key survivability requirements to include a Long Term Armor Strategy (LTAS) compliant cab, new engine and transmission, air ride suspension, anti-lock brakes, traction control, and an updated electrical system to support current and future communications equipment and diagnostic/prognostics systems.

In accordance with Section 1815 of the FY 2008 National Defense Authorization Act (P.L. 110-181), this item is necessary for use by the active and reserve components of the Armed Forces for homeland defense missions, domestic emergency responses, and providing military support to civil authorities.

NOTE: Prior Years quantities are not correct and should reflect production of 315 CBT RECAPs. Program quantities, cost and production information is correctly indicated on P5 and P21.

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 15		P-1 Line Item Number / Title: 3974G07000 / Common Bridge Transporter (CBT) Recap
		Item Number / Title [DODIC]: G07000 / Common Bridge Transporter (CBT) Recap

ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:
---------------------------------------------------------	------------------------

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Procurement Quantity (Units in Each)	138	143	112	137	-	137
Gross/Weapon System Cost (\$ in Millions)	114.792	55.392	43.155	62.978	-	62.978
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	114.792	55.392	43.155	62.978	-	62.978
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	114.792	55.392	43.155	62.978	-	62.978

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (\$ in Millions)	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Thousands)	831.826	387.357	385.313	459.693	-	459.693

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
Flyaway Cost																		
Recurring Cost																		
M1977A4 CBT RECAP(†)	311.270	315	98.050	339.776	143	48.588	344.455	112	38.579	393.482	137	53.907	-	-	-	393.482	137	53.907
Federal Retail Excise Tax (FRET) on Oshkosh Production	34.607	145	5.018	45.724	98	4.481	46.310	58	2.686	47.219	137	6.469	-	-	-	47.219	137	6.469
Engineering Changes	-	-	0.200	-	-	0.050	-	-	-	-	-	0.050	-	-	-	-	-	0.050
System Engineering/ Program Management	-	-	5.205	-	-	0.991	-	-	0.920	-	-	0.941	-	-	-	-	-	0.941
Fielding	-	-	1.313	-	-	0.500	-	-	0.450	-	-	0.800	-	-	-	-	-	0.800
Transportation	-	-	4.195	-	-	0.782	-	-	0.520	-	-	0.811	-	-	-	-	-	0.811
Data	-	-	0.761	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
System Test & Evaluation, Production	-	-	0.050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Recurring Cost</i>	-	-	114.792	-	-	55.392	-	-	43.155	-	-	62.978	-	-	-	-	-	62.978
<i>Subtotal: Flyaway Cost</i>	-	-	114.792	-	-	55.392	-	-	43.155	-	-	62.978	-	-	-	-	-	62.978
Gross/Weapon System Cost	831.826	138	114.792	387.357	143	55.392	385.313	112	43.155	459.693	137	62.978	-	-	-	459.693	137	62.978

Remarks:

Lower cost Red River Army Depot (RRAD) Production is not forecasted into FY21/22 to due availability of M1977A4 carcasses.

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 15	P-1 Line Item Number / Title: 3974G07000 / Common Bridge Transporter (CBT) Recap	Item Number / Title [DODIC]: G07000 / Common Bridge Transporter (CBT) Recap

ID Code (A=Service Ready, B=Not Service Ready) : **MDAP/MAIS Code:**
 NOTE: P40 Prior Years quantities are not correct and should reflect production of 315 CBT RECAPs. Program quantities, cost and production information is correctly indicated on P5 and P21.

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
ANG	Quantity	56	98	112	-	112
	Total Obligation Authority	26.288	37.761	51.486	-	51.486
AR	Quantity	87	14	25	-	25
	Total Obligation Authority	29.104	5.394	11.492	-	11.492
Total:	Quantity	143	112	137	-	137
Secondary Distribution	Total Obligation Authority	55.392	43.155	62.978	-	62.978

(t) indicates the presence of a P-5a

UNCLASSIFIED

Exhibit P-5a, Procurement History and Planning: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 15	P-1 Line Item Number / Title: 3974G07000 / Common Bridge Transporter (CBT) Recap	Item Number / Title [DODIC]: G07000 / Common Bridge Transporter (CBT) Recap
----------------------------------------------------------------------------------	--------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------

Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty <i>(Each)</i>	Unit Cost <i>(\$ K)</i>	Specs Avail Now?	Date Revision Available	RFP Issue Date
M1977A4 CBT RECAP ^(†)		2019	Oshkosh Corp / Oshkosh	SS / FPIF	TACOM, Warren, MI	Apr 2019	Sep 2019	98	381.000	Y		
M1977A4 CBT RECAP ^(†)		2019	Red River Army Depot / Texarkana, Texas	WR	TACOM, Warren, MI	Dec 2018	Apr 2019	45	250.000	Y		
M1977A4 CBT RECAP ^(†)		2020	Oshkosh Corp / Oshkosh	SS / FPIF	TACOM, Warren, MI	Apr 2020	Sep 2020	58	385.840	Y		
M1977A4 CBT RECAP ^(†)		2020	Red River Army Depot / Texarkana, Texas	WR	TACOM, Warren, MI	Dec 2019	Apr 2020	54	300.000	Y		
M1977A4 CBT RECAP ^(†)		2021	Oshkosh Corp / Oshkosh	SS / FPIF	TACOM, Warren, MI	Apr 2021	Sep 2021	137	393.482	Y		

^(†) indicates the presence of a P-21

Remarks:
MFR #1: Oshkosh Corp, Oshkosh, Wisconsin
MFR #2: Red River Army Depot - Texarkana, Texas

UNCLASSIFIED

Exhibit P-21, Production Schedule: PB 2021 Army															Date: February 2020														
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 15										P-1 Line Item Number / Title: 3974G07000 / Common Bridge Transporter (CBT) Recap										Item Number / Title [DODIC]: G07000 / Common Bridge Transporter (CBT) Recap									

Cost Elements <i>(Units in Each)</i>					Fiscal Year 2019													Fiscal Year 2020													BALANCE		
O C C #	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2018	BAL DUE AS OF 1 OCT	Calendar Year 2019													Calendar Year 2020													
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P			
M1977A4 CBT RECAP																																	
Prior Years Deliveries: 315																																	
	1	2019	ARMY	98	0	98																											
	2	2019	ARMY	45	0	45																											
	1	2020	ARMY	58	0	58																											
	2	2020	ARMY	54	0	54																											
	1	2021	ARMY	137	0	137																											

UNCLASSIFIED

Exhibit P-21, Production Schedule: PB 2021 Army															Date: February 2020														
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 15										P-1 Line Item Number / Title: 3974G07000 / Common Bridge Transporter (CBT) Recap										Item Number / Title [DODIC]: G07000 / Common Bridge Transporter (CBT) Recap									

Cost Elements <i>(Units in Each)</i>						Fiscal Year 2021															Fiscal Year 2022															BALANCE	
O C C #	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2020	BAL DUE AS OF 1 OCT	Calendar Year 2021															Calendar Year 2022															
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P							
M1977A4 CBT RECAP																																					
Prior Years Deliveries: 315																																					
1		2019	ARMY	98	98	0																															0
2		2019	ARMY	45	45	0																															0
1		2020	ARMY	58	5	53	5	5	5	5	4	4	5	5	5	5	5																				0
2		2020	ARMY	54	27	27	5	5	5	4	4	4																									0
1		2021	ARMY	137	0	137																															0
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P							

UNCLASSIFIED

Exhibit P-21, Production Schedule: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 15		P-1 Line Item Number / Title: 3974G07000 / Common Bridge Transporter (CBT) Recap
		Item Number / Title [DODIC]: G07000 / Common Bridge Transporter (CBT) Recap

MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Month)			Procurement Leadtime (Months)							
		MSR For 2021	1-8-5 For 2021	MAX For 2021	Initial				Reorder			
					ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1	ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1
1	Oshkosh Corp - Oshkosh	6	924	2,520	0	9	11	20	0	7	5	12
2	Red River Army Depot - Texarkana, Texas	1	3	6	0	5	4	9	0	5	4	9

Remarks:
 Government EOQ 1-8-5 production rate (924/month) accommodates mix of government and commercial production on contractor's integrated production line. Max rate (2520/month) reflects contractor capacity using second and third shifts dedicated to government production. Minimum production is one heavy truck per day.

"A" in the Delivery Schedule indicates the Contract Award Date.

Note: Due to space limitations, quantities in the Exhibit P-21 delivery calendar are truncated and rounded based on the maximum quantity in the calendar as follows. If the maximum quantity is less than or equal to than 9,999, all quantities are shown as each. If the maximum quantity is between 10,000 and 999,999 all quantities are shown in thousands. If the maximum quantity is between 1,000,000 and 999,999,999 all quantities are shown in millions (rounded to the nearest thousand). If the maximum quantity is equal or greater than 1,000,000,000 all quantities are shown in billions (rounded to the nearest million).

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 20: Engineer (Non-Construction) Equipment	P-1 Line Item Number / Title: 2876R68200 / Handheld Standoff Minefield Detection Sys-HSTAMIDS
-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------------------

ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
----------------------------------------------------------	-----------------------------------------------	--------------------------------------------

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	238	306	274	203	-	203	141	-	-	-	-	1,162
Gross/Weapon System Cost (<i>\$ in Millions</i>)	358.116	8.471	7.570	5.570	-	5.570	3.900	-	-	-	-	383.627
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	358.116	8.471	7.570	5.570	-	5.570	3.900	-	-	-	-	383.627
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	358.116	8.471	7.570	5.570	-	5.570	3.900	-	-	-	-	383.627

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Thousands</i>)	1,504.689	27.683	27.628	27.438	-	27.438	27.660	-	-	-	-	330.144

Description:

The AN/PSS-14C Mine Detecting Set is a lightweight self-contained handheld mine detector system that is operated by a single Soldier. The AN/PSS-14C is an enabler for Soldier Lethality as it guarantees Soldier maneuverability by enhancing the probability and speed of detection of buried landmines and IEDs allowing for increased speed of dismounted operations making the unit more efficient and lethal. The AN/PSS-14C consists of a Decoupled Ground Penetrating Radar (GPR) and Metal Detector (MD), which provides enhanced detection of hard to find, low/no metal IED components, along with traditional conventional mines. This item is Code A, approved for service use.

Army Acquisition Objective (AAO) is 19,851 sets.

Secondary Distribution	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
Army	Quantity	125	137	102	-	102	141	-	-
	Total Obligation Authority	5.937	5.652	4.156	-	4.156	3.900	-	-
ANG	Quantity	91	69	51	-	51	-	-	-
	Total Obligation Authority	1.274	0.966	0.714	-	0.714	-	-	-
AR	Quantity	90	68	50	-	50	-	-	-
	Total Obligation Authority	1.260	0.952	0.700	-	0.700	-	-	-
Total:	Quantity	306	274	203	-	203	141	-	-
Secondary Distribution	Total Obligation Authority	8.471	7.570	5.570	-	5.570	3.900	-	-

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 20: Engineer (Non-Construction) Equipment	P-1 Line Item Number / Title: 2876R68200 / Handheld Standoff Minefield Detection Sys-HSTAMIDS
-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------------------

ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
----------------------------------------------------------	-----------------------------------------------	--------------------------------------------

Line Item MDAP/MAIS Code: N/A

Exhibits Schedule					Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-5	R68200 / Handheld Standoff Minefield Detection Sys-HSTAMIDS	P-5a	A		238 / 358.116	306 / 8.471	274 / 7.570	203 / 5.570	- / -	203 / 5.570
P-40	Total Gross/Weapon System Cost				238 / 358.116	306 / 8.471	274 / 7.570	203 / 5.570	- / -	203 / 5.570

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

Justification:
 FY 2021 Base procurement dollars in the amount of \$5.570 million procures 203 AN/PSS-14C systems and the support (Program Management, Production Engineering, New Equipment Training (NET) and Training Lane Installation (a subset of NET)) required to field it.
 Type Classification Date: June 2016

In accordance with Section 1815 of the FY 2008 National Defense Authorization Act (P.L. 110-181), this item is necessary for use by the active and reserve components of the Armed Forces for homeland defense missions, domestic emergency responses, and providing military support to civil authorities.

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 20	P-1 Line Item Number / Title: 2876R68200 / Handheld Standoff Minefield Detection Sys-HSTAMIDS	Item Number / Title [DODIC]: R68200 / Handheld Standoff Minefield Detection Sys-HSTAMIDS

ID Code (A=Service Ready, B=Not Service Ready) : A	MDAP/MAIS Code:
-----------------------------------------------------------	------------------------

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Procurement Quantity (Units in Each)	238	306	274	203	-	203
Gross/Weapon System Cost (\$ in Millions)	358.116	8.471	7.570	5.570	-	5.570
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	358.116	8.471	7.570	5.570	-	5.570
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	358.116	8.471	7.570	5.570	-	5.570

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (\$ in Millions)	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Thousands)	1,504.689	27.683	27.628	27.438	-	27.438

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
Flyaway Cost																		
Recurring Cost																		
Detector Set AN/PSS-14 ^(†)	13.130	15,781	207.197	25.735	306	7.875	23.518	274	6.444	23.039	203	4.677	-	-	-	23.039	203	4.677
Entry Control Point - Towers	603.348	46	27.754	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sweep Monitoring System	36.358	260	9.453	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Training Target Set	9.729	203	1.975	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Production Engineering	-	-	35.502	-	-	0.226	-	-	0.230	-	-	0.235	-	-	-	-	-	0.235
Program Management	-	-	16.099	-	-	0.370	-	-	0.341	-	-	0.196	-	-	-	-	-	0.196
Training & Maintenance	-	-	35.391	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acceptance Testing	-	-	1.377	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Integrated Logistic Support	-	-	17.904	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
NET (New Equipment Training)/DTT (Doctrine and Tactics Training)	-	-	5.456	-	-	-	-	-	0.555	-	-	0.462	-	-	-	-	-	0.462
<i>Subtotal: Recurring Cost</i>	<i>-</i>	<i>-</i>	<i>358.108</i>	<i>-</i>	<i>-</i>	<i>8.471</i>	<i>-</i>	<i>-</i>	<i>7.570</i>	<i>-</i>	<i>-</i>	<i>5.570</i>	<i>-</i>	<i>-</i>	<i>-</i>	<i>-</i>	<i>-</i>	<i>5.570</i>
<i>Subtotal: Flyaway Cost</i>	<i>-</i>	<i>-</i>	<i>358.108</i>	<i>-</i>	<i>-</i>	<i>8.471</i>	<i>-</i>	<i>-</i>	<i>7.570</i>	<i>-</i>	<i>-</i>	<i>5.570</i>	<i>-</i>	<i>-</i>	<i>-</i>	<i>-</i>	<i>-</i>	<i>5.570</i>

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 20	P-1 Line Item Number / Title: 2876R68200 / Handheld Standoff Minefield Detection Sys-HSTAMIDS	Item Number / Title [DODIC]: R68200 / Handheld Standoff Minefield Detection Sys-HSTAMIDS
ID Code (A=Service Ready, B=Not Service Ready) : A		MDAP/MAIS Code:

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
Gross/Weapon System Cost	1,504.689	238	358.116	27.683	306	8.471	27.628	274	7.570	27.438	203	5.570	-	-	-	27.438	203	5.570

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Army	Quantity	125	137	102	-	102
	Total Obligation Authority	5.937	5.652	4.156	-	4.156
ANG	Quantity	91	69	51	-	51
	Total Obligation Authority	1.274	0.966	0.714	-	0.714
AR	Quantity	90	68	50	-	50
	Total Obligation Authority	1.260	0.952	0.700	-	0.700
Total:	Quantity	306	274	203	-	203
Secondary Distribution	Total Obligation Authority	8.471	7.570	5.570	-	5.570

(†) indicates the presence of a P-5a

UNCLASSIFIED

Exhibit P-5a, Procurement History and Planning: PB 2021 Army							Date: February 2020				
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 20			P-1 Line Item Number / Title: 2876R68200 / Handheld Standoff Minefield Detection Sys-HSTAMIDS				Item Number / Title [DODIC]: R68200 / Handheld Standoff Minefield Detection Sys-HSTAMIDS				

Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty (Each)	Unit Cost (\$ K)	Specs Avail Now?	Date Revision Available	RFP Issue Date
Detector Set AN/PSS-14		2019	L3 CyTerra / Orlando, Florisa	SS / FFP	CECOM, Ft Belvoir, VA	Mar 2019	Nov 2019	306	25.735	Y		
Detector Set AN/PSS-14		2020	L3 CyTerra / Orlando, Florisa	SS / FFP	CECOM Ft. Belvoir, VA	Mar 2020	Sep 2020	274	23.518	Y		
Detector Set AN/PSS-14		2021	L3 CyTerra / Orlando, Florisa	SS / FFP	CECOM Ft. Belvoir, VA	Mar 2021	Aug 2021	203	23.039	Y		

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 20: Engineer (Non-Construction) Equipment	P-1 Line Item Number / Title: 2881R68400 / Grnd Standoff Mine Detectn Systm (GSTAMIDS)
----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------------------

ID Code (A=Service Ready, B=Not Service Ready):	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
--------------------------------------------------------	-----------------------------------------------	--------------------------------------------

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity <i>(Units in Each)</i>	426	180	154	32	-	32	-	-	-	-	-	792
Gross/Weapon System Cost <i>(\$ in Millions)</i>	2,029.977	42.001	40.680	2.497	-	2.497	-	-	-	-	-	2,115.155
Less PY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) <i>(\$ in Millions)</i>	2,029.977	42.001	40.680	2.497	-	2.497	-	-	-	-	-	2,115.155
Plus CY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority <i>(\$ in Millions)</i>	2,029.977	42.001	40.680	2.497	-	2.497	-	-	-	-	-	2,115.155

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost <i>(\$ in Thousands)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost <i>(\$ in Thousands)</i>	4,765.204	233.339	264.156	78.031	-	78.031	-	-	-	-	-	2,670.650

Description:

This is an All Types line covering ground vehicle mounted or towed landmine detection, marking and neutralization systems. This Program Element contributes to Area Access (A2) to support unified land operations and improve soldier survivability. This line is used to procure Improvised Explosive Devices (IED) and landmine detection, interrogation, neutralization, protection, Area Access, route clearance and area clearance capabilities. Procurement of improved detection, interrogation, neutralization and protection capabilities for mine, IED and Explosive Hazard threats are needed as technology becomes available.

This exhibit contains the following programs:

Explosive Hazard Pre-Detonation (EHP)

EHP provides the capability of a Roller System (on the Medium Mine Protected Vehicles (MMPV) Type II), Debris Blower (on the Buffalo Mine Protected Clearance Vehicle), and Wire Neutralization (on the Husky based Vehicle Mounted Mine Detection system). EHP enhances route clearance capabilities while on the move to detect (by encounter), neutralize and survive against a full spectrum of explosive hazard landmines, IEDs, Explosively Formed Penetrator, unexploded ordnance, battlefield munitions and trigger their mechanisms while conducting route clearance operations. The Army Acquisition Objective (AAO) for the Roller System is 336, the Debris Blower is 176, and the Wire Neutralization System (WNS) is 128.

Mine Clearing Vehicle (MCV)

The M1271 Mine Clearing Vehicle is a medium, commercially available, blast protected, mechanical flail. The MCV is a manually controlled, self powered vehicle with an adjustable depth flail head designed to clear large areas of anti-tank and anti-personnel land mines. The AAO for MCV is 41.

Route Clearance Virtual Clearance Training Suite (VCTS)

The VCTS provides soldiers at 14 sites the capability for virtual training on Route Clearance vehicles, EHP, and MCV systems.

Vehicle Optics Sensor System (VOSS)

VOSS provides a telescoping, gyro-stabilized, high resolution, triple sensor (day camera, Image Intensify Night Vision Sensor and an Infrared Sensor) surveillance system to optically detect from standoff distances, explosive hazards (Improvised Explosive Device (IEDs) and landmines), and their trigger sources. VOSS is mounted on MMPV located within Route Clearance Platoons and Explosive Ordnance Disposal (EOD) Companies. PM Ground Sensors is pursuing an acquisition approach which harvests Quick Reaction Capability (QRC) procured systems for refresh into the Program of Record (POR). The refresh effort will be conducted at Tobyhanna Army Depot.

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2021 Army							Date: February 2020			
Appropriation / Budget Activity / Budget Sub Activity: 2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 20: Engineer (Non-Construction) Equipment					P-1 Line Item Number / Title: 2881R68400 / Grnd Standoff Mine Detectn Systm (GSTAMIDS)					
ID Code (A=Service Ready, B=Not Service Ready):			Program Elements for Code B Items: N/A			Other Related Program Elements: N/A				
Line Item MDAP/MAIS Code: N/A										

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
Army	Quantity	135	84	32	-	32	-	-	-	-
	Total Obligation Authority	37.349	33.242	2.497	-	2.497	-	-	-	-
ANG	Quantity	32	37	-	-	-	-	-	-	-
	Total Obligation Authority	3.236	3.719	-	-	-	-	-	-	-
AR	Quantity	13	33	-	-	-	-	-	-	-
	Total Obligation Authority	1.416	3.719	-	-	-	-	-	-	-
Total:	Quantity	180	154	32	-	32	-	-	-	-
Secondary Distribution	Total Obligation Authority	42.001	40.680	2.497	-	2.497	-	-	-	-

Justification:
 Total FY2021 Base procurement dollars in the amount of \$2.497 million supports the remaining Total Package Fielding of VOSS to Explosive Ordinance Disposal (EOD) and Engineers.

In accordance with Section 1815 of the FY 2008 National Defense Authorization Act (P.L. 110-181), this item is necessary for use by the active and reserve components of the Armed Forces for homeland defense missions, domestic emergency responses, and providing military support to civil authorities.

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 20: Engineer (Non-Construction) Equipment	P-1 Line Item Number / Title: 2888R68260 / AREA MINE DETECTION SYSTEM (AMDS)
-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	----------------------------------------------------------------------------------------

ID Code (A=Service Ready, B=Not Service Ready): B	Program Elements for Code B Items: N/A	Other Related Program Elements: 0654808A
----------------------------------------------------------	-----------------------------------------------	-------------------------------------------------

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	12	-	-	-	-	-	-	-	-	-	Continuing	Continuing
Gross/Weapon System Cost (<i>\$ in Millions</i>)	21.168	5.797	-	-	-	-	-	-	-	-	Continuing	Continuing
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	21.168	5.797	-	-	-	-	-	-	-	-	Continuing	Continuing
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	21.168	5.797	-	-	-	-	-	-	-	-	Continuing	Continuing

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Thousands</i>)	1,764.000	-	-	-	-	-	-	-	-	-	Continuing	Continuing

Description:

The Standoff Robotic Explosive Hazard Detection System (SREHD), formerly known as the Autonomous Mine Detection System (AMDS), provides increased survivability through mine and explosive hazards stand-off detection, marking and neutralization capability for the dismounted soldier. It provides area access and freedom of movement for the Commander. SREHD consists of payload modules to be mounted on man-portable unmanned ground vehicles. The payloads, consisting of detection, marking, and neutralization payloads, are for surface laid and buried threats to include mines and explosive hazards. This capability allows a soldier to remain in a protective posture while detecting and neutralizing a wide variety of hybrid and conventional explosive threats. This item is code B, approved for restricted use.

The Army Acquisition Objective (AAO) for SREHD is 173.

Secondary Distribution	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
Army	Quantity	-	-	-	-	-	-	-	-
	Total Obligation Authority	5.797	-	-	-	-	-	-	-
Total: Secondary Distribution	Quantity	-	-	-	-	-	-	-	-
	Total Obligation Authority	5.797	-	-	-	-	-	-	-

Justification:

There is no FY 2021 funding request.

In accordance with Section 1815 of the FY 2008 National Defense Authorization Act (P.L. 110-181), this item is necessary for use by the active and reserve components of the Armed Forces for homeland defense missions, domestic emergency responses, and providing military support to civil authorities.

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 20: Engineer (Non-Construction) Equipment	P-1 Line Item Number / Title: 2889R64001 / HUSKY MOUNTED DETECTION SYSTEM (HMDS)
----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------------

ID Code (A=Service Ready, B=Not Service Ready):	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
--------------------------------------------------------	-----------------------------------------------	--------------------------------------------

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	19	58	194	80	-	80	48	-	-	-	-	399
Gross/Weapon System Cost (<i>\$ in Millions</i>)	35.418	35.834	75.586	109.069	-	109.069	76.800	-	-	-	-	332.707
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	35.418	35.834	75.586	109.069	-	109.069	76.800	-	-	-	-	332.707
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	35.418	35.834	75.586	109.069	-	109.069	76.800	-	-	-	-	332.707

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Thousands</i>)	1,864.105	617.828	389.619	1,363.363	-	1,363.363	1,600.000	-	-	-	-	833.852

Description:

This line is used to procure Improvised Explosive Devices (IED) and landmine detection, interrogation, neutralization, protection, route clearance and area clearance capabilities required for future battlefields. Procurements of improved detection, neutralization, and protection capabilities for mine and IED threats are expected as technology becomes available.

The Husky Mounted Detection System (HMDS) is a life-saving counter-explosive device capability that provides standoff detection and marking of metallic encased caches and metallic and low-metallic antitank landmines, unexploded ordnance, trigger mechanisms, and improvised explosive devices (IEDs) in support of route and area-clearance operations. HMDS is a mission equipment package, mounted on the Husky route clearance vehicle and includes associated installation and auto-sensor height hardware. The HMDS-0 (R64002 line) configuration provides Ground Penetrating Radar (GPR) as the primary detection sensor. The HMDS-0 (R64002 line) will continue production and fielding in FY21. The HMDS-2 (R64003 line) configuration adds Wire Detection (WD) capability, further improving the detection rate of IEDs commonly found along routes and incorporates Information Assurance (IA) enabling compliance with Risk Management Framework requirements. These changes are necessary to adapt to ever changing IED threats endangering our Soldiers. WD technology will be fully integrated through an Engineering Change Proposal (ECP) process completing in FY20 with production beginning in FY20 and fielding in FY21. Future configurations may include detection capability of deep buried metallic threats (weapons caches, Unexploded Ordnance (UXO) and advanced GPR sensor capability which incorporates increased performance allowing interoperability with Counter Radio Warfare (CREW) jammer with deeper detection capability.

Secondary Distribution	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
Army	Quantity	26	106	38	-	38	29	-	-
	Total Obligation Authority	24.634	61.303	90.369	-	90.369	70.150	-	-
ANG	Quantity	32	45	11	-	11	9	-	-
	Total Obligation Authority	11.200	7.492	5.850	-	5.850	3.150	-	-
AR	Quantity	-	43	31	-	31	10	-	-
	Total Obligation Authority	-	6.791	12.850	-	12.850	3.500	-	-
Total:	Quantity	58	194	80	-	80	48	-	-

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 20: Engineer (Non-Construction) Equipment	P-1 Line Item Number / Title: 2889R64001 / HUSKY MOUNTED DETECTION SYSTEM (HMDS)
-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------------

ID Code (A=Service Ready, B=Not Service Ready):	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
--------------------------------------------------------	-----------------------------------------------	--------------------------------------------

Line Item MDAP/MAIS Code: N/A

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
Secondary Distribution	Total Obligation Authority	35.834	75.586	109.069	-	109.069	76.800	-	-	-

--	--	--	--	--	--	--	--	--	--	--

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 20: Engineer (Non-Construction) Equipment **P-1 Line Item Number / Title:** 2889R64001 / HUSKY MOUNTED DETECTION SYSTEM (HMDS)

ID Code (A=Service Ready, B=Not Service Ready): **Program Elements for Code B Items:** N/A **Other Related Program Elements:** N/A

Line Item MDAP/MAIS Code: N/A

Exhibits Schedule					Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-5	R64002 / HMDS - GROUND PENETRATING RADAR	P-5a, P-21			19 / 35.418	58 / 35.834	134 / 46.204	42 / 24.853	- / -	42 / 24.853
P-5	R64003 / HMDS - DEEP BURIED DETECTION	P-5a, P-21			- / -	- / -	60 / 29.382	38 / 84.216	- / -	38 / 84.216
P-40	Total Gross/Weapon System Cost				19 / 35.418	58 / 35.834	194 / 75.586	80 / 109.069	- / -	80 / 109.069

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

Justification:
 FY2021 Base procurement dollars in the amount of \$109.184 million will procure 42 Husky Mounted Detection System (HMDS) Ground Penetrating Radars (GPRs) (Configuration -0) (HMDS-0), 182 HMDS Wire Detection (WD) Sensors (Configuration -2) (HMDS-2), associated spares, NET, CLS/fielding efforts, and program support.

In accordance with Section 1815 of the FY2008 National Defense Authorization Act (P.L. 110-181), this item is necessary for use by the active and reserve components of the Armed Forces for homeland defense missions, domestic emergency responses, and providing military support to civil authorities.

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 20	P-1 Line Item Number / Title: 2889R64001 / HUSKY MOUNTED DETECTION SYSTEM (HMDS)	Item Number / Title [DODIC]: R64002 / HMDS - GROUND PENETRATING RADAR

ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:
---------------------------------------------------------	------------------------

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Procurement Quantity (Units in Each)	19	58	134	42	-	42
Gross/Weapon System Cost (\$ in Millions)	35.418	35.834	46.204	24.853	-	24.853
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	35.418	35.834	46.204	24.853	-	24.853
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	35.418	35.834	46.204	24.853	-	24.853

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (\$ in Millions)	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Thousands)	1,864.105	617.828	344.806	591.738	-	591.738

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
Hardware Cost																		
Recurring Cost																		
HMDS GPR ⁽¹⁾	1,105.842	19	21.011	321.534	58	18.649	208.545	134	27.945	331.690	42	13.931	-	-	-	331.690	42	13.931
Subtotal: Recurring Cost	-	-	21.011	-	-	18.649	-	-	27.945	-	-	13.931	-	-	-	-	-	13.931
Subtotal: Hardware Cost	-	-	21.011	-	-	18.649	-	-	27.945	-	-	13.931	-	-	-	-	-	13.931
Package Fielding Cost																		
Recurring Cost																		
Initial Spares/Repair Parts	-	-	6.588	-	-	0.831	-	-	2.041	-	-	3.791	-	-	-	-	-	3.791
New Equipment Training	-	-	1.421	-	-	2.774	-	-	5.105	-	-	2.030	-	-	-	-	-	2.030
Con/Integrated Logistics Support	-	-	1.439	-	-	8.092	-	-	4.368	-	-	2.051	-	-	-	-	-	2.051
Fielding initial support	-	-	0.612	-	-	2.568	-	-	5.040	-	-	1.653	-	-	-	-	-	1.653
Subtotal: Recurring Cost	-	-	10.060	-	-	14.265	-	-	16.554	-	-	9.525	-	-	-	-	-	9.525
Subtotal: Package Fielding Cost	-	-	10.060	-	-	14.265	-	-	16.554	-	-	9.525	-	-	-	-	-	9.525
Support - Program Management Cost																		
Contractor Management	-	-	4.347	-	-	2.920	-	-	1.705	-	-	1.397	-	-	-	-	-	1.397
Subtotal: Support - Program Management Cost	-	-	4.347	-	-	2.920	-	-	1.705	-	-	1.397	-	-	-	-	-	1.397
Gross/Weapon System Cost	1,864.105	19	35.418	617.828	58	35.834	344.806	134	46.204	591.738	42	24.853	-	-	-	591.738	42	24.853

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 20	P-1 Line Item Number / Title: 2889R64001 / HUSKY MOUNTED DETECTION SYSTEM (HMDS)	Item Number / Title [DODIC]: R64002 / HMDS - GROUND PENETRATING RADAR

ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:
---------------------------------------------------------	------------------------

Remarks:
FY21 Weapon System Unit Cost of GPR only configuration is \$592,381, which is a reduction from FY20 Unit Cost of \$615,056.

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Army	Quantity	26	46	-	-	-
	Total Obligation Authority	24.634	31.921	6.153	-	6.153
ANG	Quantity	32	45	11	-	11
	Total Obligation Authority	11.200	7.492	5.850	-	5.850
AR	Quantity	-	43	31	-	31
	Total Obligation Authority	-	6.791	12.850	-	12.850
Total: Secondary Distribution	Quantity	58	134	42	-	42
	Total Obligation Authority	35.834	46.204	24.853	-	24.853

(t) indicates the presence of a P-5a

UNCLASSIFIED

Exhibit P-5a, Procurement History and Planning: PB 2021 Army							Date: February 2020					
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 20			P-1 Line Item Number / Title: 2889R64001 / HUSKY MOUNTED DETECTION SYSTEM (HMDS)				Item Number / Title [DODIC]: R64002 / HMDS - GROUND PENETRATING RADAR					
Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty (Each)	Unit Cost (\$ K)	Specs Avail Now?	Date Revision Available	RFP Issue Date
HMDS GPR ^(†)		2021	Chemring Sensors & Eletronic / Charlotte, NC	SS / IDIQ	Charlotte, NC	Feb 2021	Nov 2021	42	331.690	N		

^(†) indicates the presence of a P-21

UNCLASSIFIED

Exhibit P-21, Production Schedule: PB 2021 Army																							Date: February 2020										
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 20											P-1 Line Item Number / Title: 2889R64001 / HUSKY MOUNTED DETECTION SYSTEM (HMDS)											Item Number / Title [DODIC]: R64002 / HMDS - GROUND PENETRATING RADAR											
Cost Elements <i>(Units in Each)</i>						Fiscal Year 2021													Fiscal Year 2022													B A L A N C E	
O C C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2020	BAL DUE AS OF 1 OCT	Calendar Year 2021													Calendar Year 2022													
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P			
HMDS GPR																																	
Prior Years Deliveries: 19																																	
	1	2021	ARMY	42	0	42																							0				

UNCLASSIFIED

Exhibit P-21, Production Schedule: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 20		P-1 Line Item Number / Title: 2889R64001 / HUSKY MOUNTED DETECTION SYSTEM (HMDS)
		Item Number / Title [DODIC]: R64002 / HMDS - GROUND PENETRATING RADAR

MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Month)			Procurement Leadtime (Months)							
		MSR For 2021	1-8-5 For 2021	MAX For 2021	Initial				Reorder			
					ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1	ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1
1	Chemring Sensors & Eletronic - Charlotte, NC	7	15	20	2	1	8	9	2	1	8	9

Remarks:

Production rates are monthly.

"A" in the Delivery Schedule indicates the Contract Award Date.

Note: Due to space limitations, quantities in the Exhibit P-21 delivery calendar are truncated and rounded based on the maximum quantity in the calendar as follows. If the maximum quantity is less than or equal to than 9,999, all quantities are shown as each. If the maximum quantity is between 10,000 and 999,999 all quantities are shown in thousands. If the maximum quantity is between 1,000,000 and 999,999,999 all quantities are shown in millions (rounded to the nearest thousand).If the maximum quantity is equal or greater than 1,000,000,000 all quantities are shown in billions (rounded to the nearest million).

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 20	P-1 Line Item Number / Title: 2889R64001 / HUSKY MOUNTED DETECTION SYSTEM (HMDS)	Item Number / Title [DODIC]: R64003 / HMDS - DEEP BURIED DETECTION

ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:
---------------------------------------------------------	------------------------

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Procurement Quantity (Units in Each)	-	-	60	38	-	38
Gross/Weapon System Cost (\$ in Millions)	-	-	29.382	84.216	-	84.216
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	-	-	29.382	84.216	-	84.216
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	-	-	29.382	84.216	-	84.216

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (\$ in Millions)	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Thousands)	-	-	489.700	2,216.211	-	2,216.211

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
Hardware Cost																		
Recurring Cost																		
HMDS Wire Detection (WD) ^(†)	-	-	-	-	-	-	287.583	60	17.255	294.473	182	53.594	-	-	-	294.473	182	53.594
<i>Subtotal: Recurring Cost</i>	-	-	-	-	-	-	-	-	17.255	-	-	53.594	-	-	-	-	-	53.594
<i>Subtotal: Hardware Cost</i>	-	-	-	-	-	-	-	-	17.255	-	-	53.594	-	-	-	-	-	53.594
Package Fielding Cost																		
Recurring Cost																		
Initial Spares/Repair Parts	-	-	-	-	-	-	-	-	1.602	-	-	5.624	-	-	-	-	-	5.624
New Equipment Training	-	-	-	-	-	-	-	-	3.267	-	-	7.646	-	-	-	-	-	7.646
Con/Integrated Logistics Support	-	-	-	-	-	-	-	-	2.796	-	-	7.724	-	-	-	-	-	7.724
Fielding Initial Support	-	-	-	-	-	-	-	-	3.371	-	-	4.365	-	-	-	-	-	4.365
<i>Subtotal: Recurring Cost</i>	-	-	-	-	-	-	-	-	11.036	-	-	25.359	-	-	-	-	-	25.359
<i>Subtotal: Package Fielding Cost</i>	-	-	-	-	-	-	-	-	11.036	-	-	25.359	-	-	-	-	-	25.359
Support - Program Management Cost																		
Contractor Management	-	-	-	-	-	-	-	-	1.091	-	-	5.263	-	-	-	-	-	5.263
<i>Subtotal: Support - Program Management Cost</i>	-	-	-	-	-	-	-	-	1.091	-	-	5.263	-	-	-	-	-	5.263

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 20	P-1 Line Item Number / Title: 2889R64001 / HUSKY MOUNTED DETECTION SYSTEM (HMDS)	Item Number / Title [DODIC]: R64003 / HMDS - DEEP BURIED DETECTION
ID Code (A=Service Ready, B=Not Service Ready) :		MDAP/MAIS Code:

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
Gross/Weapon System Cost	-	-	-	-	-	-	489.700	60	29.382	2,216.211	38	84.216	-	-	-	2,216.211	38	84.216

Remarks:

FY21 Weapon System Unit Cost of WD only configuration is \$463,209 which is a reduction from FY20 unit cost of \$489,700. FY21 quantities increased to meet Army prioritization of fielding the Wire Detect capability providing increased detection performance.

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Army	Quantity	-	60	38	-	38
	Total Obligation Authority	-	29.382	84.216	-	84.216
Total: Secondary Distribution	Quantity	-	60	38	-	38
	Total Obligation Authority	-	29.382	84.216	-	84.216

(t) indicates the presence of a P-5a

UNCLASSIFIED

Exhibit P-5a, Procurement History and Planning: PB 2021 Army							Date: February 2020					
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 20			P-1 Line Item Number / Title: 2889R64001 / HUSKY MOUNTED DETECTION SYSTEM (HMDS)				Item Number / Title [DODIC]: R64003 / HMDS - DEEP BURIED DETECTION					
Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty (Each)	Unit Cost (\$ K)	Specs Avail Now?	Date Revision Available	RFP Issue Date
HMDS Wire Detection (WD) ^(†)		2021	Chemring Sensors & Electronic / Charlotte, NC	SS / IDIQ	Charlotte, NC	Feb 2021	Nov 2021	182	294.473	N		

^(†) indicates the presence of a P-21

UNCLASSIFIED

Exhibit P-21, Production Schedule: PB 2021 Army																							Date: February 2020												
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 20										P-1 Line Item Number / Title: 2889R64001 / HUSKY MOUNTED DETECTION SYSTEM (HMDS)										Item Number / Title [DODIC]: R64003 / HMDS - DEEP BURIED DETECTION															
Cost Elements <i>(Units in Each)</i>						Fiscal Year 2021														Fiscal Year 2022														B A L A N C E	
O C C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2020	BAL DUE AS OF 1 OCT	Calendar Year 2021														Calendar Year 2022														
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P					
HMDS Wire Detection (WD)																																			
	1	2021	ARMY	182	0	182					A	-	-	-	-	-	-	-	-	15	15	15	15	15	15	15	15	15	15	15	15	15	17		
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P					

UNCLASSIFIED

Exhibit P-21, Production Schedule: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 20		P-1 Line Item Number / Title: 2889R64001 / HUSKY MOUNTED DETECTION SYSTEM (HMDS)
		Item Number / Title [DODIC]: R64003 / HMDS - DEEP BURIED DETECTION

Cost Elements <i>(Units in Each)</i>						Fiscal Year 2023													Fiscal Year 2024													B A L A N C E	
O C C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2022	BAL DUE AS OF 1 OCT	Calendar Year 2023													Calendar Year 2024													
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P			

HMDS Wire Detection (WD)																												0	
1	2021	ARMY		182	165	17	15	2																					

							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P
--	--	--	--	--	--	--	-------------	-------------	-------------	-------------	-------------	-------------	-------------	-------------	-------------	-------------	-------------	-------------	-------------	-------------	-------------	-------------	-------------	-------------	-------------	-------------	-------------	-------------	-------------	-------------

UNCLASSIFIED

Exhibit P-21, Production Schedule: PB 2021 Army							Date: February 2020					
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 20			P-1 Line Item Number / Title: 2889R64001 / HUSKY MOUNTED DETECTION SYSTEM (HMDS)				Item Number / Title [DODIC]: R64003 / HMDS - DEEP BURIED DETECTION					
MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Month)			Procurement Leadtime (Months)							
		MSR For 2021	1-8-5 For 2021	MAX For 2021	Initial				Reorder			
					ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1	ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1
1	Chemring Sensors & Electronic - Charlotte, NC	7	15	20	2	1	5	6	2	1	5	6

"A" in the Delivery Schedule indicates the Contract Award Date.

Note: Due to space limitations, quantities in the Exhibit P-21 delivery calendar are truncated and rounded based on the maximum quantity in the calendar as follows. If the maximum quantity is less than or equal to than 9,999, all quantities are shown as each. If the maximum quantity is between 10,000 and 999,999 all quantities are shown in thousands. If the maximum quantity is between 1,000,000 and 999,999,999 all quantities are shown in millions (rounded to the nearest thousand). If the maximum quantity is equal or greater than 1,000,000,000 all quantities are shown in billions (rounded to the nearest million).

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 20: Engineer (Non-Construction) Equipment	P-1 Line Item Number / Title: 4865M80400 / Robotic Combat Support System (RCSS)
-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-------------------------------------------------------------------------------------------

ID Code (A=Service Ready, B=Not Service Ready): B	Program Elements for Code B Items: 0606808A	Other Related Program Elements: N/A
----------------------------------------------------------	----------------------------------------------------	--------------------------------------------

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity <i>(Units in Each)</i>	45	5	8	-	-	-	-	-	-	-	-	58
Gross/Weapon System Cost <i>(\$ in Millions)</i>	88.684	8.879	5.300	-	-	-	-	-	-	-	-	102.863
Less PY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) <i>(\$ in Millions)</i>	88.684	8.879	5.300	-	-	-	-	-	-	-	-	102.863
Plus CY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority <i>(\$ in Millions)</i>	88.684	8.879	5.300	-	-	-	-	-	-	-	-	102.863

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost <i>(\$ in Thousands)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost <i>(\$ in Thousands)</i>	1,970.756	1,775.800	662.500	-	-	-	-	-	-	-	-	1,773.500

Description:

This Robotic Combat Support System (RCSS) Budget line procures the M160 Mine Flail. The M160 is a 6.1-ton tracked, combat engineer vehicle designed for teleoperation by soldiers from either mounted or dismounted positions to perform area clearance of antipersonnel mine-sown areas. The revised Army Acquisition Objective (AAO) is 72. The M160 detonates or destroys anti-personnel mines in a 68-inch wide path through the action of a rotating chain and hammer flail system, a mine roller, or earth moving blade. The M160 provides standoff and increased protection for engineer units conducting route and area clearance missions. It fills the Light Flail mission in the Area Clearance Family of Systems. The M160 is a program of record, developed from a modified Commercial Off The Shelf (COTS) system.

Secondary Distribution	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
Army	Quantity	5	5	-	-	-	-	-	-
	Total Obligation Authority	7.127	3.638	-	-	-	-	-	-
ANG	Quantity	-	1	-	-	-	-	-	-
	Total Obligation Authority	1.752	0.554	-	-	-	-	-	-
AR	Quantity	-	2	-	-	-	-	-	-
	Total Obligation Authority	-	1.108	-	-	-	-	-	-
Total: Secondary Distribution	Quantity	5	8	-	-	-	-	-	-
	Total Obligation Authority	8.879	5.300	-	-	-	-	-	-

Justification:

There is no FY 2021 funding in support of the M160 Mine Flail program.

In accordance with Section 1815 of the FY 2008 National Defense Authorization Act (P.L. 110-181), this item is necessary for use by the active and reserve components of the Armed Forces for homeland defense missions, domestic emergency responses, and providing military support to civil authorities.

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 20: Engineer (Non-Construction) Equipment		P-1 Line Item Number / Title: 4865M80400 / Robotic Combat Support System (RCSS)
ID Code (A=Service Ready, B=Not Service Ready): B	Program Elements for Code B Items: 0606808A	Other Related Program Elements: N/A
Line Item MDAP/MAIS Code: N/A		

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 20: Engineer (Non-Construction) Equipment	P-1 Line Item Number / Title: 4867W12001 / EOD Robotics Systems Recapitalization
-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------------

ID Code (A=Service Ready, B=Not Service Ready): B	Program Elements for Code B Items: 0605053A	Other Related Program Elements: N/A
----------------------------------------------------------	----------------------------------------------------	--------------------------------------------

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	79	11	76	73	-	73	-	-	-	-	-	239
Gross/Weapon System Cost (<i>\$ in Millions</i>)	26.861	17.736	23.115	36.584	-	36.584	-	-	-	-	-	104.296
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	26.861	17.736	23.115	36.584	-	36.584	-	-	-	-	-	104.296
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	26.861	17.736	23.115	36.584	-	36.584	-	-	-	-	-	104.296

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Thousands</i>)	340.013	1,612.364	304.145	501.151	-	501.151	-	-	-	-	-	436.385

Description:

The Common Robotic System, Heavy (CRS(H)) is a modular large-sized system that provides enhanced protection to the Explosive Ordnance Disposal (EOD) Soldier in order to support the Joint Force Commander with the ability to identify, render safe and dispose of Explosive Ordnance (EO) and Improvised Explosive Devices (IEDs) in support of the Range of Military Operations (ROMO) and Home Land Defense (HLD) operations. CRS(H) will also enable EOD Soldiers to execute Defense Support of the Civil Authorities (DSCA) operations in response to requests from federal, state, local, and tribal authorities for domestic incidents, emergencies, disasters, designated law enforcement support and other activities. CRS(H) will support current and future missions for EOD units. Funds in this budget line are a new start for CRS(H) OPA funding. The Army Acquisition Objective (AAO) for CRS(H) robots is 248.

The Man Transportable Robotic System, Talon 5a robot is a key enabler to Explosive Ordnance Disposal (EOD) soldiers. The medium-sized robot provides unmanned investigation of suspicious objects and potential Improvised Explosive Device (IED) threats, with increased manipulation capability to interrogate threats from a safe standoff distance. The robot also provides real time intelligence, surveillance and reconnaissance while accessing sites, performing route clearance missions, conducting render safe operations, and disposing of hazardous material in a high risk contaminated environment. The recapitalization effort will maximize the use of the legacy MTRS fleet by restoring currently fielded systems to a like-new condition in appearance, performance, and life expectancy, while inserting new technology where practical, to improve reliability and maintainability. The fleet will bridge the capability gap until the Army fields the program of record Man Transportable Robotic System Increment II to EOD units. The Army Acquisition Objective (AAO) for Talon 5a robots is 593.

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
Army	Quantity	11	76	57	-	57	-	-	-	-
	Total Obligation Authority	17.736	23.115	29.544	-	29.544	-	-	-	-
ANG	Quantity	-	-	16	-	16	-	-	-	-
	Total Obligation Authority	-	-	7.040	-	7.040	-	-	-	-
Total:	Quantity	11	76	73	-	73	-	-	-	-
Secondary Distribution	Total Obligation Authority	17.736	23.115	36.584	-	36.584	-	-	-	-

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 20: Engineer (Non-Construction) Equipment **P-1 Line Item Number / Title:** 4867W12001 / EOD Robotics Systems Recapitalization

ID Code (A=Service Ready, B=Not Service Ready): B **Program Elements for Code B Items:** 0605053A **Other Related Program Elements:** N/A

Line Item MDAP/MAIS Code: N/A

Exhibits Schedule					Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-5	W12001 / EOD Robotics Systems Recapitalization	P-5a, P-21	B		79 / 26.861	11 / 17.736	76 / 23.115	73 / 36.584	- / -	73 / 36.584
P-40	Total Gross/Weapon System Cost				79 / 26.861	11 / 17.736	76 / 23.115	73 / 36.584	- / -	73 / 36.584

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

Justification:
 FY 2021 Base procurement dollars in the amount of \$36.584 million supports the procurement of 73 Common Robotic Systems-Heavy (CRS(H)), initial spares, Engineering Change Proposals (ECPs), Logistics products, Contractor Logistics Support (CLS), software support, and any program management costs associated with these activities.

There are no FY 2020 or 2021 Base procurement dollars for the Man Transportable Robotic System (MTRS) MK II systems into Talon 5a systems.

In accordance with Section 1815 of the FY 2008 National Defense Authorization Act (P.L. 110-181), this item is necessary for use by the active and reserve components of the Armed Forces for homeland defense missions, domestic emergency responses, and providing military support to civil authorities.

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 20	P-1 Line Item Number / Title: 4867W12001 / EOD Robotics Systems Recapitalization	Item Number / Title [DODIC]: W12001 / EOD Robotics Systems Recapitalization

ID Code (A=Service Ready, B=Not Service Ready) : B	MDAP/MAIS Code:
-----------------------------------------------------------	------------------------

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Procurement Quantity (Units in Each)	79	11	76	73	-	73
Gross/Weapon System Cost (\$ in Millions)	26.861	17.736	23.115	36.584	-	36.584
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	26.861	17.736	23.115	36.584	-	36.584
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	26.861	17.736	23.115	36.584	-	36.584

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (\$ in Millions)	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Thousands)	340.013	1,612.364	304.145	501.151	-	501.151

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
Hardware Cost																		
Recurring Cost																		
Man Transportable Robotic System (MTRS)-Talon 5a RECAP ⁽¹⁾	155.358	162	25.168	121.802	96	11.693	-	-	-	-	-	-	-	-	-	-	-	-
Common Robotic Systems - Heavy (CRS(H)) ⁽¹⁾	-	-	-	380.000	11	4.180	380.000	47	17.860	338.356	73	24.700	-	-	-	338.356	73	24.700
<i>Subtotal: Recurring Cost</i>	-	-	25.168	-	-	15.873	-	-	17.860	-	-	24.700	-	-	-	-	-	24.700
Subtotal: Hardware Cost	-	-	25.168	-	-	15.873	-	-	17.860	-	-	24.700	-	-	-	-	-	24.700
Software Cost																		
Recurring Cost																		
CRS(H) Software Support	-	-	-	-	-	-	-	-	0.300	-	-	1.312	-	-	-	-	-	1.312
<i>Subtotal: Recurring Cost</i>	-	-	-	-	-	-	-	-	0.300	-	-	1.312	-	-	-	-	-	1.312
Subtotal: Software Cost	-	-	-	-	-	-	-	-	0.300	-	-	1.312	-	-	-	-	-	1.312
Package Fielding Cost																		
Recurring Cost																		
Talon 5a New Equipment Training (NET)	-	-	0.030	-	-	0.125	-	-	-	-	-	-	-	-	-	-	-	-
Talon 5a Initial Spares	-	-	1.228	-	-	0.861	-	-	-	-	-	-	-	-	-	-	-	-

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 20		P-1 Line Item Number / Title: 4867W12001 / EOD Robotics Systems Recapitalization
ID Code (A=Service Ready, B=Not Service Ready) : B		MDAP/MAIS Code:
Item Number / Title [DODIC]: W12001 / EOD Robotics Systems Recapitalization		

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
<i>Subtotal: Recurring Cost</i>	-	-	1.258	-	-	0.986	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Package Fielding Cost</i>	-	-	1.258	-	-	0.986	-	-	-	-	-	-	-	-	-	-	-	-
Logistics Cost																		
Recurring Cost																		
CRS(H) Logistics Products	-	-	-	-	-	-	-	-	0.400	-	-	0.732	-	-	-	-	-	0.732
<i>Subtotal: Recurring Cost</i>	-	-	-	-	-	-	-	-	0.400	-	-	0.732	-	-	-	-	-	0.732
<i>Subtotal: Logistics Cost</i>	-	-	-	-	-	-	-	-	0.400	-	-	0.732	-	-	-	-	-	0.732
Support - Contractor Logistics Support (CLS) Cost																		
Oversight	-	-	-	-	-	0.230	-	-	2.815	-	-	4.462	-	-	-	-	-	4.462
<i>Subtotal: Support - Contractor Logistics Support (CLS) Cost</i>	-	-	-	-	-	0.230	-	-	2.815	-	-	4.462	-	-	-	-	-	4.462
Support - Engineering Change Proposals Cost																		
Engineering Change Proposals	-	-	-	-	-	-	-	-	0.180	-	-	0.285	-	-	-	-	-	0.285
<i>Subtotal: Support - Engineering Change Proposals Cost</i>	-	-	-	-	-	-	-	-	0.180	-	-	0.285	-	-	-	-	-	0.285
Support - Fielding Cost																		
Fielding	-	-	-	-	-	-	-	-	0.330	-	-	1.023	-	-	-	-	-	1.023
<i>Subtotal: Support - Fielding Cost</i>	-	-	-	-	-	-	-	-	0.330	-	-	1.023	-	-	-	-	-	1.023
Support - Initial Spares and Repair Parts Cost																		
Initial Spares and Repair Parts	-	-	-	4.833	12	0.058	-	-	-	-	-	3.547	-	-	-	-	-	3.547
<i>Subtotal: Support - Initial Spares and Repair Parts Cost</i>	-	-	-	-	-	0.058	-	-	-	-	-	3.547	-	-	-	-	-	3.547
Support - New Equipment Training (NET) Cost																		
Equipment	-	-	-	-	-	-	-	-	0.330	-	-	0.523	-	-	-	-	-	0.523
<i>Subtotal: Support - New Equipment Training (NET) Cost</i>	-	-	-	-	-	-	-	-	0.330	-	-	0.523	-	-	-	-	-	0.523
Support - Program Management Cost																		
Government Management	-	-	0.135	-	-	0.428	-	-	0.900	-	-	-	-	-	-	-	-	-

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 20	P-1 Line Item Number / Title: 4867W12001 / EOD Robotics Systems Recapitalization	Item Number / Title [DODIC]: W12001 / EOD Robotics Systems Recapitalization
ID Code (A=Service Ready, B=Not Service Ready) : B		MDAP/MAIS Code:

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
Contractor Management	-	-	0.300	-	-	0.161	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Support - Program Management Cost</i>	-	-	0.435	-	-	0.589	-	-	0.900	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost	340.013	79	26.861	1,612.364	11	17.736	304.145	76	23.115	501.151	73	36.584	-	-	-	501.151	73	36.584

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Army	Quantity	11	76	57	-	57
	Total Obligation Authority	17.736	23.115	29.544	-	29.544
ANG	Quantity	-	-	16	-	16
	Total Obligation Authority	-	-	7.040	-	7.040
Total: Secondary Distribution	Quantity	11	76	73	-	73
	Total Obligation Authority	17.736	23.115	36.584	-	36.584

(t) indicates the presence of a P-5a

UNCLASSIFIED

Exhibit P-5a, Procurement History and Planning: PB 2021 Army								Date: February 2020				
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 20			P-1 Line Item Number / Title: 4867W12001 / EOD Robotics Systems Recapitalization					Item Number / Title [DODIC]: W12001 / EOD Robotics Systems Recapitalization				
Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty (Each)	Unit Cost (\$ K)	Specs Avail Now?	Date Revision Available	RFP Issue Date
Man Transportable Robotic System (MTRS)-Talon 5a RECAP		2018	Robot Log Spt Center / Harrison Twp, MI	C / IDIQ	Warren, MI	Dec 2017	Jun 2018	55	156.727	Y		
Man Transportable Robotic System (MTRS)-Talon 5a RECAP		2019	Robot Log Spt Center / Harrison Twp, MI	C / FFP	Warren, MI	Nov 2018	May 2019	96	121.802	Y		
Common Robotic Systems - Heavy (CRS(H)) ^(†)		2019	FLIR / Chelmsford, MA	C / FFP	Chelmsford, MA	Oct 2019	Apr 2020	11	380.000	N		
Common Robotic Systems - Heavy (CRS(H)) ^(†)		2020	TBD / TBD	C / FFP	Warren, MI	Mar 2020	Aug 2020	47	380.000	Y		
Common Robotic Systems - Heavy (CRS(H)) ^(†)		2021	FLIR / Chelmsford, MA	C / FFP	Chelmsford, MA	Aug 2021	Nov 2021	73	338.356	Y		

^(†) indicates the presence of a P-21

Remarks:
W12001 EOD Robotics Systems Recapitalization was a shared line for Talon 5a RECAP and Common Robotic System-Heavy in Fiscal Year 2019.

UNCLASSIFIED

Exhibit P-21, Production Schedule: PB 2021 Army																							Date: February 2020										
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 20											P-1 Line Item Number / Title: 4867W12001 / EOD Robotics Systems Recapitalization											Item Number / Title [DODIC]: W12001 / EOD Robotics Systems Recapitalization											
Cost Elements <i>(Units in Each)</i>						Fiscal Year 2018													Fiscal Year 2019													B A L A N C E	
O C C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2017	BAL DUE AS OF 1 OCT	Calendar Year 2018													Calendar Year 2019													
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P			
Common Robotic Systems - Heavy (CRS(H))																																	
	2	2019	ARMY	11	0	11																								11			
	1	2020	ARMY	47	0	47																								47			
	2	2021	ARMY	73	0	73																								73			
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P			

UNCLASSIFIED

Exhibit P-21, Production Schedule: PB 2021 Army														Date: February 2020															
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 20										P-1 Line Item Number / Title: 4867W12001 / EOD Robotics Systems Recapitalization										Item Number / Title [DODIC]: W12001 / EOD Robotics Systems Recapitalization									

Cost Elements <i>(Units in Each)</i>						Fiscal Year 2022														Fiscal Year 2023														BALANCE	
O C C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2021	BAL DUE AS OF 1 OCT	Calendar Year 2022														Calendar Year 2023														
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P					
Common Robotic Systems - Heavy (CRS(H))																																			
	2	2019	ARMY	11	11	0																								0					
	1	2020	ARMY	47	47	0																								0					
	2	2021	ARMY	73	0	73	-	6	6	6	6	6	6	6	6	6	6	7												0					
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P					

UNCLASSIFIED

Exhibit P-21, Production Schedule: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 20		P-1 Line Item Number / Title: 4867W12001 / EOD Robotics Systems Recapitalization
		Item Number / Title [DODIC]: W12001 / EOD Robotics Systems Recapitalization

MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Month)			Procurement Leadtime (Months)							
		MSR For 2021	1-8-5 For 2021	MAX For 2021	Initial				Reorder			
					ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1	ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1
1	TBD - TBD	1	5	10	0	1	6	7	0	1	6	7
2	FLIR - Chelmsford, MA	2	4	8	0	1	6	7	0	1	7	8

Remarks:
Production rates are monthly.

"A" in the Delivery Schedule indicates the Contract Award Date.

Note: Due to space limitations, quantities in the Exhibit P-21 delivery calendar are truncated and rounded based on the maximum quantity in the calendar as follows. If the maximum quantity is less than or equal to than 9,999, all quantities are shown as each. If the maximum quantity is between 10,000 and 999,999 all quantities are shown in thousands. If the maximum quantity is between 1,000,000 and 999,999,999 all quantities are shown in millions (rounded to the nearest thousand). If the maximum quantity is equal or greater than 1,000,000,000 all quantities are shown in billions (rounded to the nearest million).

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 20: Engineer (Non-Construction) Equipment	P-1 Line Item Number / Title: 4868W12002 / Robotics and Applique Systems
----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	------------------------------------------------------------------------------------

ID Code (A=Service Ready, B=Not Service Ready): B	Program Elements for Code B Items: 0604808A	Other Related Program Elements: 0605053A
----------------------------------------------------------	----------------------------------------------------	-------------------------------------------------

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	897	1,904	1,844	2,380	-	2,380	2,313	1,643	1,813	2,157	Continuing	Continuing
Gross/Weapon System Cost (<i>\$ in Millions</i>)	29.424	35.456	101.056	179.544	-	179.544	169.874	164.703	192.742	255.200	Continuing	Continuing
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	29.424	35.456	101.056	179.544	-	179.544	169.874	164.703	192.742	255.200	Continuing	Continuing
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	29.424	35.456	101.056	179.544	-	179.544	169.874	164.703	192.742	255.200	Continuing	Continuing

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Thousands</i>)	32.803	18.622	54.803	75.439	-	75.439	73.443	100.245	106.311	118.312	Continuing	Continuing

Description:

The Common Robotic System - Individual (CRS(I)) is the Army's small sized (<25 lbs.) Soldier back-packable, remotely operated, common robotic system. The system provides dismounted Soldiers with increased standoff capability from hazardous threats. The system consists of a Universal Controller (UC), a suite of payloads, and an open architecture common mobility platform allowing for future capability growth. The CRS(I) will allow the operator to quickly re-configure for other various missions by adding or removing modules and/or payloads. The CRS(I) will provide interrogation, detection, confirmation, and neutralization capabilities employed to support a wide spectrum of mobility missions for current and future forces. This capability provides commanders the ability to persistently monitor the Operating Environment (OE) while protecting and sustaining the force. The CRS(I) complements the Joint Integrated War-fighting Force by providing standoff to the Warfighter during major combat, stability, and homeland security operations. The Army Acquisition Objective (AAO) is 4565.

The Universal Robotic Controller (URC) provides the capability to individually and/or concurrently control multiple Unmanned Systems (UxS) platforms and control/monitor a mesh network without having to obtain and/or carry separate Operator Control Unit (OCU)s for each system. A controlled UxS may be mobile or stationary, can be smart learning, and self-adaptive. Two URCs will be used to hand-off control of a system to a receiver, reducing hand-off time and the need for the UxSs to have multiple OCUs. The URC will also be capable of "hot swapping" batteries where one of its two batteries can be replaced without the system being shut down, halting mission progress, and use current or new Soldier power sources that will maximize its operational time and minimize the number of replacement batteries needed for most missions. The intent of this requirement is allow the Soldier at battalion and below to use the URC to operate unmanned aerial systems (e.g. Raven, PUMA, Short Range Micro (SRM), etc.) and unmanned ground vehicles (e.g. CRS(I), CRS(V), CRS(M), CRS(H), SMET, MTRS INC II, Light Reconnaissance (LR), Wingman, Robotic Combat Vehicle (RCV), etc.) and emerging unmanned air/ground systems. The URC is defined in the Common Robotic System (Individual) (CRS(I)) Capability Development Document (CDD) and is included in the CRS(I) acquisition. As the URC is currently part of the CRS(I) contract; a standalone (CDD) is being developed and there is no specific AAO at this time.

The Tactical Wheeled Vehicle Leader Follower (TWV-LF) provides force protection and logistics throughput for line haul convoy missions for the Palletized Load System (PLS) Fleet of TWVs via wireless linking of unmanned follower PLS' to a Soldier-operated Leader PLS vehicle. It reduces the number of soldiers required to operate the convoy, resulting in reduced number exposed to risk of injury from attack. The TWV-LF capability is a suite of robotic applique sensors and vehicle by-wire and active safety upgrades to provide an unmanned capability to the PLS A1 Fleet of vehicles for convoy operations, with (1) manned leader and (3) to (7) unmanned follower vehicles. The AAO is 3,300.

The Small Multipurpose Equipment Transport (S-MET) will help to reduce Soldier loads and increase mission capabilities by transporting mission specific equipment, resupply equipment, and supplies required for extended operations. The S-MET will be capable of carrying the equipment currently required to support Infantry and Engineer Platoons in the Infantry Brigade Combat Team (IBCT) for a 72 hour mission

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 20: Engineer (Non-Construction) Equipment	P-1 Line Item Number / Title: 4868W12002 / Robotics and Applique Systems
-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	------------------------------------------------------------------------------------

ID Code (A=Service Ready, B=Not Service Ready): B	Program Elements for Code B Items: 0604808A	Other Related Program Elements: 0605053A
----------------------------------------------------------	----------------------------------------------------	-------------------------------------------------

Line Item MDAP/MAIS Code: N/A

without resupply. The S-MET will reduce Soldier load, increase squad mobility during combat operations and dismounted maneuvers. S-MET will have open architectures, a remote control and support casualty evacuation, power generation/offload and integration of Modular Mission Payloads (MMP) and technical insertions. The AAO is TBD.

The Man Transportable Robotic System (MTRS) Inc. II is the Army's Soldier transportable, remotely operated, medium size (<= 164 lbs.) common robotic system. The system utilizes both radio and tethered communications allowing dismounted Soldiers to perform hazardous missions from a safe standoff distance. The MTRS Inc. II system consists of an Operator Control Unit (OCU), a suite of various mission payloads, and a mobility platform. Open architecture and the Ground Robotic Autonomous Systems (RAS) Interoperability Profile (IOP) requirements are employed to reduce obsolescence risks and to maximize efficiency in acquiring future capabilities. MTRS Inc. II will support current and future payload missions for the Engineer's route clearance platoons, Special Operational Forces (SOF) detachments, Chemical Biological Radiological and Nuclear (CBRN), and Explosive Ordnance Disposal (EOD) Units. The approved Army Acquisition Objective (AAO) for this program is 1,148.

The Soldier Borne Sensor (SBS) is a small unmanned aerial vehicle. The SBS provides a near term solution to three Army War-fighting Challenges at the Infantry Squad level: develop situational understanding, conduct air-ground reconnaissance, and conduct joint combined arms maneuver. The system is simple to deploy and used to support the squad leader's decision-making process. The system allows Soldiers to obtain local situational awareness and understanding of their immediate surroundings while remaining in covered or concealed positions.

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
Army	Quantity	1,904	1,162	1,633	-	1,633	1,442	1,119	1,202	1,366
	Total Obligation Authority	35.456	94.236	114.660	-	114.660	101.796	74.211	82.189	114.571
ANG	Quantity	-	465	603	-	603	851	422	491	661
	Total Obligation Authority	-	4.650	46.310	-	46.310	65.796	54.754	68.528	94.975
AR	Quantity	-	217	144	-	144	20	102	120	130
	Total Obligation Authority	-	2.170	18.574	-	18.574	2.282	35.738	42.025	45.654
Total: Secondary Distribution	Quantity	1,904	1,844	2,380	-	2,380	2,313	1,643	1,813	2,157
	Total Obligation Authority	35.456	101.056	179.544	-	179.544	169.874	164.703	192.742	255.200

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity:
2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 20: Engineer (Non-Construction) Equipment

P-1 Line Item Number / Title:
4868W12002 / Robotics and Applique Systems

ID Code (A=Service Ready, B=Not Service Ready): B **Program Elements for Code B Items:** 0604808A **Other Related Program Elements:** 0605053A

Line Item MDAP/MAIS Code: N/A

Exhibits Schedule					Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-5	G93696 / Common Robotic System - Individual (CRS-I)	P-5a, P-21	B		- / -	- / -	271 / 30.387	839 / 54.528	- / -	839 / 54.528
P-5	G99595 / Common Robotic System-Individual (CRS-I)	P-5a	B		- / -	237 / 3.563	127 / 2.285	180 / 1.154	- / -	180 / 1.154
P-5	R06806 / Leader/Follower Applique (L/F)				- / -	- / -	- / -	- / 7.624	- / -	- / 7.624
P-5	R12154 / Squad Multipurpose Equipment Transport (SMET)	P-5a, P-21	B		- / -	- / -	62 / 8.768	190 / 33.355	- / -	190 / 33.355
P-5	R67050 / Man Transportable Robotic Sys Inc II (MTRS Inc II)	P-5a, P-21	B		38 / 5.567	38 / 7.456	236 / 36.254	493 / 63.976	- / -	493 / 63.976
P-5	W63798 / Soldier Borne Sensor (SBS)	P-5a, P-21			859 / 23.857	1,629 / 24.437	1,148 / 23.362	678 / 18.907	- / -	678 / 18.907
P-40	Total Gross/Weapon System Cost				897 / 29.424	1,904 / 35.456	1,844 / 101.056	2,380 / 179.544	- / -	2,380 / 179.544

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

Justification:

FY 2021 Base Procurement dollars, in the amount of \$54.528 million for G93696 Common Robotic System (Individual) (CRS(I)), support the procurement of 839 CRS(I) systems with Universal Controllers, engineering and logistics data, Interim Contractor Logistics Support (ICLS), Engineering Change Proposals (ECP) and testing of ECPs, and System Engineering Program Management (SEPM). The FY20 quantities for the CRS(I) are incorrect, they should be:
CRS(I) G93696
FY20: 465

FY 2021 Base Procurement dollars, in the amount of \$1.154 million for G99595 Universal Robotic Controller, support the procurement of 144 Universal Controllers for unmanned aerial systems (e.g. Raven, PUMA, Short Range Micro (SRM), etc.), unmanned ground vehicles (e.g. CRS(I), CRS(V), CRS(M), CRS(H), SMET, MTRS Inc. II, Light Reconnaissance (LR), Wingman, RCV, etc.), and emerging unmanned air/ground systems, engineering and logistics data, Interim Contractor Logistics Support (ICLS), Engineering Change Proposals (ECP), and System Engineering Program Management (SEPM). The FY19-FY21 quantities for the URC are incorrect, they should be:
UC G99595
FY19: 53
FY20: 285
FY21: 144

In FY 2021, \$0.356 million in Reimbursable Manpower for G99595 Universal Robotic Controller has been realigned from Reimbursable Civilian Funding to Direct Operations and Maintenance. Program support costs have been accurately updated to reflect the realignments.

FY 2021 Base Procurement dollars, in the amount of \$7.624 million for R06806 Leader Follower, support the procurement of Contractor Logistics Support including parts and services, Engineering Change proposal implementation, Software sustainment support, and program management of (60) Leader Follower systems issued under HQ Department of Army Directed Requirement (60 systems acquired with RDTE). This will be supported under procurement until production of the Leader Follower systems are complete. FY 2021 is the first year the LF program receives Procurement funding, and represents a New Start.

FY 2021 Base Procurement dollars, in the amount of \$33.355 million for R12154 Squad Multipurpose Equipment Transport, support the procurement 238 Small Multipurpose Equipment Transport (S-MET) systems, Modular Mission Payloads (MMP), Technical Insertions or Engineering Change Proposals (ECP), and Total Package Fielding. The FY20-FY21 quantities for the S-MET are incorrect, they should be:

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 20: Engineer (Non-Construction) Equipment		P-1 Line Item Number / Title: 4868W12002 / Robotics and Applique Systems
ID Code (A=Service Ready, B=Not Service Ready): B	Program Elements for Code B Items: 0604808A	Other Related Program Elements: 0605053A
Line Item MDAP/MAIS Code: N/A		
<p>S-MET R12154 FY20: 24 FY21: 238</p> <p>In FY 2021, \$0.356 million in Reimbursable Manpower for R12154 Squad Multipurpose Equipment Transport has been realigned from Reimbursable Civilian Funding to Direct Operations and Maintenance. Program support costs have been accurately updated to reflect the realignments.</p> <p>FY 2021 Base Procurement dollars, in the amount of \$63.976 million for R67050 Man Transportable Robotics System Increment II, supports the procurement of 477 Man Transportable Robotics System Increment II (MTRS Inc. II), software sustainment, Contractor Logistics Support (CLS) (or government support from the Robotics Logistics Support Center (RLSC)), MTRS Inc. II production systems, Chemical, Biological, Radiological, and Nuclear (CBRN) kits, Robotic Deployment System Kit with external antenna mounts, initial spares, logistic activities, and System Engineering Program Management (SEPM).</p> <p>FY 2021 Base Procurement dollars, in the amount of \$18.907 million for W63798 Soldier Borne Sensor (SBS), support the procurement of 678 Soldier Borne Sensor (SBS) systems.</p> <p>NOTE: SSN G99595 was listed as Common Robotic System (Individual) (CRS(I)) for the FY 2019 President's Budget, but was converted to Common Robotic System (Universal Controller) (CRS(UC)) for the FY 2020 President's Budget. In FY 2020 SSN G93696 was opened and the Common Robotic System (Individual) (CRS(I)) program transitioned to this line. Prior to FY 2020, both the Common Robotic System (Individual) (CRS(I)) and Common Robotic System (Universal Controller) (CRS(UC)) were funded under the same SSN G99595.</p> <p>In accordance with Section 1815 of the FY 2008 National Defense Authorization Act (P.L 110-151), these items are necessary for use by the active and reserve components of the Armed Forces for homeland defense missions, domestic emergency responses, and providing military support to civil authorities.</p>		

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 20	P-1 Line Item Number / Title: 4868W12002 / Robotics and Applique Systems	Item Number / Title [DODIC]: G93696 / Common Robotic System - Individual (CRS-I)

ID Code (A=Service Ready, B=Not Service Ready) : B	MDAP/MAIS Code:
-----------------------------------------------------------	------------------------

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Procurement Quantity (Units in Each)	-	-	271	839	-	839
Gross/Weapon System Cost (\$ in Millions)	-	-	30.387	54.528	-	54.528
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	-	-	30.387	54.528	-	54.528
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	-	-	30.387	54.528	-	54.528

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (\$ in Millions)	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Thousands)	-	-	112.129	64.992	-	64.992

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
Hardware Cost																		
Recurring Cost																		
CRS(I) systems ^(†)	-	-	-	-	-	-	75.000	271	20.325	45.000	839	37.755	-	-	-	45.000	839	37.755
<i>Subtotal: Recurring Cost</i>	-	-	-	-	-	-	-	-	20.325	-	-	37.755	-	-	-	-	-	37.755
<i>Subtotal: Hardware Cost</i>	-	-	-	-	-	-	-	-	20.325	-	-	37.755	-	-	-	-	-	37.755
Software Cost																		
Recurring Cost																		
CRS(I) software support	-	-	-	-	-	-	-	-	1.854	-	-	1.800	-	-	-	-	-	1.800
<i>Subtotal: Recurring Cost</i>	-	-	-	-	-	-	-	-	1.854	-	-	1.800	-	-	-	-	-	1.800
<i>Subtotal: Software Cost</i>	-	-	-	-	-	-	-	-	1.854	-	-	1.800	-	-	-	-	-	1.800
Support - Contractor Logistics Support (CLS) Cost																		
Oversight	-	-	-	-	-	-	-	-	3.954	-	-	6.500	-	-	-	-	-	6.500
<i>Subtotal: Support - Contractor Logistics Support (CLS) Cost</i>	-	-	-	-	-	-	-	-	3.954	-	-	6.500	-	-	-	-	-	6.500
Support - Engineering Change Proposals Cost																		
Engineering Change Proposals	-	-	-	-	-	-	-	-	1.224	-	-	2.590	-	-	-	-	-	2.590
<i>Subtotal: Support - Engineering Change Proposals Cost</i>	-	-	-	-	-	-	-	-	1.224	-	-	2.590	-	-	-	-	-	2.590
Support - New Equipment Training (NET) Cost																		

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 20	P-1 Line Item Number / Title: 4868W12002 / Robotics and Applique Systems	Item Number / Title [DODIC]: G93696 / Common Robotic System - Individual (CRS-I)

ID Code (A=Service Ready, B=Not Service Ready) : B	MDAP/MAIS Code:
-----------------------------------------------------------	------------------------

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
Equipment	-	-	-	-	-	-	-	-	0.630	-	-	1.780	-	-	-	-	-	1.780
<i>Subtotal: Support - New Equipment Training (NET) Cost</i>	-	-	-	-	-	-	-	-	0.630	-	-	1.780	-	-	-	-	-	1.780
Support - Program Management Cost																		
Government Management	-	-	-	-	-	-	-	-	2.354	-	-	2.298	-	-	-	-	-	2.298
<i>Subtotal: Support - Program Management Cost</i>	-	-	-	-	-	-	-	-	2.354	-	-	2.298	-	-	-	-	-	2.298
Support - System Technical Support (STS) Cost																		
System Technical Support (STS)	-	-	-	-	-	-	-	-	-	-	-	0.750	-	-	-	-	-	0.750
<i>Subtotal: Support - System Technical Support (STS) Cost</i>	-	-	-	-	-	-	-	-	-	-	-	0.750	-	-	-	-	-	0.750
Support - Training Cost																		
Services	-	-	-	-	-	-	-	-	0.046	-	-	1.055	-	-	-	-	-	1.055
<i>Subtotal: Support - Training Cost</i>	-	-	-	-	-	-	-	-	0.046	-	-	1.055	-	-	-	-	-	1.055
Gross/Weapon System Cost	-	-	-	-	-	-	112.129	271	30.387	64.992	839	54.528	-	-	-	64.992	839	54.528

Remarks:
For Common Robotic System (Individual) the FY 2020 unit cost represented an internal cost estimate. The FY 2021 represents a downward adjusted unit cost for the awarded contract amount. The change in quantity and price from fiscal year 2020 to 2021 is because 2020 is Low Rate Initial Production (LRIP) and 2021 is Full Rate Production (FRP).

SSN G99595 was listed as Common Robotic System (Individual) (CRS(I)) for the FY 2019 President's Budget, but was converted to Common Robotic System (Universal Controller) (CRS(UC)) for the FY 2020 President's Budget. In FY 2020 SSN G93696 was opened and the Common Robotic System (Individual) CRS(I) program transitioned to this line. Prior to FY 2020, both the Common Robotic System (Individual) CRS(I) and Common Robotic System (Universal Controller) (CRS(UC)) were funded under the same SSN G99595.

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Army	Quantity	-	271	629	-	629
	Total Obligation Authority	-	30.387	43.348	-	43.348
ANG	Quantity	-	-	210	-	210
	Total Obligation Authority	-	-	11.180	-	11.180
Total:	Quantity	-	271	839	-	839

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army			Date: February 2020			
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 20		P-1 Line Item Number / Title: 4868W12002 / Robotics and Applique Systems		Item Number / Title [DODIC]: G93696 / Common Robotic System - Individual (CRS-I)		
ID Code (A=Service Ready, B=Not Service Ready) : B			MDAP/MAIS Code:			
Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Secondary Distribution	Total Obligation Authority	-	30.387	54.528	-	54.528

(t) indicates the presence of a P-5a

UNCLASSIFIED

Exhibit P-5a, Procurement History and Planning: PB 2021 Army							Date: February 2020				
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 20			P-1 Line Item Number / Title: 4868W12002 / Robotics and Applique Systems				Item Number / Title [DODIC]: G93696 / Common Robotic System - Individual (CRS-I)				

Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty <i>(Each)</i>	Unit Cost <i>(\$ K)</i>	Specs Avail Now?	Date Revision Available	RFP Issue Date
CRS(I) systems ^(†)		2020	QinetiQ North America / Waltham, MA	C / FFP	Warren, MI	Mar 2020	Jun 2020	271	75.000	N		
CRS(I) systems ^(†)		2021	QinetiQ North America / Waltham, MA	C / FFP	Warren, MI	Jan 2021	May 2021	839	45.000	N		

^(†) indicates the presence of a P-21

UNCLASSIFIED

Exhibit P-21, Production Schedule: PB 2021 Army															Date: February 2020														
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 20										P-1 Line Item Number / Title: 4868W12002 / Robotics and Applique Systems										Item Number / Title [DODIC]: G93696 / Common Robotic System - Individual (CRS-I)									

Cost Elements <i>(Units in Each)</i>						Fiscal Year 2022												Fiscal Year 2023												B A L A N C E	
O C C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2021	BAL DUE AS OF 1 OCT	Calendar Year 2022												Calendar Year 2023												
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G		S E P
CRS(I) systems																															
	1	2020	ARMY	271	271	0																								0	
	1	2021	ARMY	839	343	496	75	72	70	70	70	70	69																	0	
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	

UNCLASSIFIED

Exhibit P-21, Production Schedule: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 20		P-1 Line Item Number / Title: 4868W12002 / Robotics and Applique Systems
		Item Number / Title [DODIC]: G93696 / Common Robotic System - Individual (CRS-I)

MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Month)			Procurement Leadtime (Months)							
		MSR For 2021	1-8-5 For 2021	MAX For 2021	Initial				Reorder			
					ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1	ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1
1	QinetiQ North America - Waltham, MA	30	75	100	0	3	4	7	0	3	4	7

"A" in the Delivery Schedule indicates the Contract Award Date.

Note: Due to space limitations, quantities in the Exhibit P-21 delivery calendar are truncated and rounded based on the maximum quantity in the calendar as follows. If the maximum quantity is less than or equal to than 9,999, all quantities are shown as each. If the maximum quantity is between 10,000 and 999,999 all quantities are shown in thousands. If the maximum quantity is between 1,000,000 and 999,999,999 all quantities are shown in millions (rounded to the nearest thousand). If the maximum quantity is equal or greater than 1,000,000,000 all quantities are shown in billions (rounded to the nearest million).

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 20	P-1 Line Item Number / Title: 4868W12002 / Robotics and Applique Systems	Item Number / Title [DODIC]: G99595 / Common Robotic System- Individual (CRS-I)

ID Code (A=Service Ready, B=Not Service Ready) : B	MDAP/MAIS Code:
-----------------------------------------------------------	------------------------

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Procurement Quantity (<i>Units in Each</i>)	-	237	127	180	-	180
Gross/Weapon System Cost (<i>\$ in Millions</i>)	-	3.563	2.285	1.154	-	1.154
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	-	3.563	2.285	1.154	-	1.154
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	-	3.563	2.285	1.154	-	1.154

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Thousands</i>)	-	15.034	17.992	6.411	-	6.411

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
Flyaway Cost																		
Non Recurring Cost																		
Universal Robotic Controller (URC) ^(†)	-	-	-	-	-	0.343	15.000	127	1.905	6.681	144	0.962	-	-	-	6.681	144	0.962
<i>Subtotal: Non Recurring Cost</i>	-	-	-	-	-	<i>0.343</i>	-	-	<i>1.905</i>	-	-	<i>0.962</i>	-	-	-	-	-	<i>0.962</i>
<i>Subtotal: Flyaway Cost</i>	-	-	-	-	-	0.343	-	-	1.905	-	-	0.962	-	-	-	-	-	0.962
Hardware Cost																		
Recurring Cost																		
Common Robotic Controller - Individual (CRS(I)) ^(†)	-	-	-	58.868	53	3.120	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Recurring Cost</i>	-	-	-	-	-	<i>3.120</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Hardware Cost</i>	-	-	-	-	-	3.120	-	-	-	-	-	-	-	-	-	-	-	-
Support - Engineering Change Proposals Cost																		
Engineering Change Proposals	-	-	-	-	-	-	-	-	0.175	-	-	-	-	-	-	-	-	-
<i>Subtotal: Support - Engineering Change Proposals Cost</i>	-	-	-	-	-	-	-	-	0.175	-	-	-	-	-	-	-	-	-
Support - Program Management Cost																		
Government Management	-	-	-	-	-	0.100	-	-	0.205	-	-	0.192	-	-	-	-	-	0.192

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 20	P-1 Line Item Number / Title: 4868W12002 / Robotics and Applique Systems	Item Number / Title [DODIC]: G99595 / Common Robotic System- Individual (CRS-I)
ID Code (A=Service Ready, B=Not Service Ready) : B		MDAP/MAIS Code:

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
<i>Subtotal: Support - Program Management Cost</i>	-	-	-	-	-	0.100	-	-	0.205	-	-	0.192	-	-	-	-	-	0.192
Gross/Weapon System Cost	-	-	-	15.034	237	3.563	17.992	127	2.285	6.411	180	1.154	-	-	-	6.411	180	1.154

Remarks:

The FY 2020 unit cost represented an internal cost estimate. The FY 2021 represents a downward adjusted unit cost for the awarded contract amount.

SSN G99595 was listed as Common Robotic System (Individual) (CRS(I)) for the FY 2019 President's Budget, but was converted to Common Robotic System (Universal Controller) (CRS(UC)) for the FY 2020 President's Budget. In FY 2020 SSN G93696 was opened and the Common Robotic System (Individual) (CRS(I)) program transitioned to this line. Prior to FY 2020, both the Common Robotic System (Individual) (CRS(I)) and Common Robotic System (Universal Controller) (CRS(UC)) were funded under the same SSN G99595.

In FY 2021, \$0.356 million in Reimbursable Manpower has been realigned from Reimbursable Civilian Funding to Direct Operations and Maintenance. Program support costs have been accurately updated to reflect the realignments.

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Army	Quantity	237	127	180	-	180
	Total Obligation Authority	3.563	2.285	1.154	-	1.154
Total:	Quantity	237	127	180	-	180
Secondary Distribution	Total Obligation Authority	3.563	2.285	1.154	-	1.154

(t) indicates the presence of a P-5a

UNCLASSIFIED

Exhibit P-5a, Procurement History and Planning: PB 2021 Army							Date: February 2020				
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 20			P-1 Line Item Number / Title: 4868W12002 / Robotics and Applique Systems				Item Number / Title [DODIC]: G99595 / Common Robotic System- Individual (CRS-I)				

Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty <i>(Each)</i>	Unit Cost <i>(\$ K)</i>	Specs Avail Now?	Date Revision Available	RFP Issue Date
Universal Robotic Controller (URC)		2020	QinetiQ North America / Waltham, MA	C / FFP	Warren, MI	Mar 2020	Jun 2020	127	15.000	N		
Universal Robotic Controller (URC)		2021	QinetiQ North America / Waltham, MA	C / FFP	Warren, MI	Jan 2021	Apr 2021	144	6.681	N		
Common Robotic Controller - Individual (CRS(I))		2019	QinetiQ North America / Waltham, MA	C / FFP	Warren MI	Mar 2019	Jun 2019	53	58.868	N		

Remarks:
 In FY 2019, the G99595 unit cost represented the estimated cost of both the CRS-I system and Universal Controller combined. These efforts were split into two SSNs in FY 2020, The effort represented in FY 2020 and FY 2021 is for the Universal Controller only. The unit cost differential between FY 2020 and FY 2021 is explained in the P5 remarks.

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 20	P-1 Line Item Number / Title: 4868W12002 / Robotics and Applique Systems	Item Number / Title [DODIC]: R06806 / Leader/Follower Applique (L/F)

ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:
---------------------------------------------------------	------------------------

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Procurement Quantity (Units in Each)	-	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	-	-	-	7.624	-	7.624
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	-	-	-	7.624	-	7.624
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	-	-	-	7.624	-	7.624

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (\$ in Millions)	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Thousands)	-	-	-	-	-	-

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
Hardware Cost																		
Non Recurring Cost																		
LF Support-Engineering Change Proposals Cost	-	-	-	-	-	-	-	-	-	-	-	1.894	-	-	-	-	-	1.894
<i>Subtotal: Non Recurring Cost</i>	-	-	-	-	-	-	-	-	-	-	-	<i>1.894</i>	-	-	-	-	-	<i>1.894</i>
Subtotal: Hardware Cost	-	-	-	-	-	-	-	-	-	-	-	1.894	-	-	-	-	-	1.894
Software Cost																		
Recurring Cost																		
LF Software Support	-	-	-	-	-	-	-	-	-	-	-	1.637	-	-	-	-	-	1.637
<i>Subtotal: Recurring Cost</i>	-	-	-	-	-	-	-	-	-	-	-	<i>1.637</i>	-	-	-	-	-	<i>1.637</i>
Subtotal: Software Cost	-	-	-	-	-	-	-	-	-	-	-	1.637	-	-	-	-	-	1.637
Logistics Cost																		
Recurring Cost																		
LF Contractor Logistics Support (CLS)	-	-	-	-	-	-	-	-	-	-	-	3.300	-	-	-	-	-	3.300
<i>Subtotal: Recurring Cost</i>	-	-	-	-	-	-	-	-	-	-	-	<i>3.300</i>	-	-	-	-	-	<i>3.300</i>
Subtotal: Logistics Cost	-	-	-	-	-	-	-	-	-	-	-	3.300	-	-	-	-	-	3.300
Support - Program Management Cost																		
Government Management	-	-	-	-	-	-	-	-	-	-	-	0.793	-	-	-	-	-	0.793

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 20	P-1 Line Item Number / Title: 4868W12002 / Robotics and Applique Systems	Item Number / Title [DODIC]: R06806 / Leader/Follower Applique (L/F)
ID Code (A=Service Ready, B=Not Service Ready) :		MDAP/MAIS Code:

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
<i>Subtotal: Support - Program Management Cost</i>	-	-	-	-	-	-	-	-	-	-	-	0.793	-	-	-	-	-	0.793
Gross/Weapon System Cost	-	-	-	-	-	-	-	-	-	-	-	7.624	-	-	-	-	-	7.624

Remarks:

FY 2021 funding for the R06806 Leader/Follower Applique (L/F) represents a New Start effort.

FY 2021 Base Procurement dollars in the amount of \$7.624 million for Leader Follower supports the procurement of Contractor Logistics Support including parts and services, Engineering Change proposal implementation, Software sustainment support, and program management of (60) Leader Follower systems (previously procured using RDT&E funds) issued under HQ Department of Army Directed Requirement. This will be supported under procurement until production of the Leader Follower systems are complete.

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Army	Quantity	-	-	-	-	-
	Total Obligation Authority	-	-	7.624	-	7.624
Total:	Quantity	-	-	-	-	-
Secondary Distribution	Total Obligation Authority	-	-	7.624	-	7.624

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 20	P-1 Line Item Number / Title: 4868W12002 / Robotics and Applique Systems	Item Number / Title [DODIC]: R12154 / Squad Multipurpose Equipment Transport (SMET)

ID Code (A=Service Ready, B=Not Service Ready) : B	MDAP/MAIS Code:
-----------------------------------------------------------	------------------------

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Procurement Quantity (Units in Each)	-	-	62	190	-	190
Gross/Weapon System Cost (\$ in Millions)	-	-	8.768	33.355	-	33.355
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	-	-	8.768	33.355	-	33.355
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	-	-	8.768	33.355	-	33.355

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (\$ in Millions)	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Thousands)	-	-	141.419	175.553	-	175.553

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
Hardware Cost																		
Recurring Cost																		
Spare & Repair Parts for CLS	-	-	-	-	-	-	-	-	0.100	-	-	0.500	-	-	-	-	-	0.500
Modular Mission Payloads & Tech Insertions / ECPs	-	-	-	-	-	-	-	-	0.500	-	-	1.000	-	-	-	-	-	1.000
<i>Subtotal: Recurring Cost</i>	-	-	-	-	-	-	-	-	0.600	-	-	1.500	-	-	-	-	-	1.500
Non Recurring Cost																		
S-MET Production Systems ⁽¹⁾	-	-	-	-	-	-	100.000	62	6.200	120.000	238	28.560	-	-	-	120.000	238	28.560
<i>Subtotal: Non Recurring Cost</i>	-	-	-	-	-	-	-	-	6.200	-	-	28.560	-	-	-	-	-	28.560
<i>Subtotal: Hardware Cost</i>	-	-	-	-	-	-	-	-	6.800	-	-	30.060	-	-	-	-	-	30.060
Package Fielding Cost																		
Recurring Cost																		
Total Package Fielding	-	-	-	-	-	-	-	-	0.250	-	-	0.600	-	-	-	-	-	0.600
<i>Subtotal: Recurring Cost</i>	-	-	-	-	-	-	-	-	0.250	-	-	0.600	-	-	-	-	-	0.600
<i>Subtotal: Package Fielding Cost</i>	-	-	-	-	-	-	-	-	0.250	-	-	0.600	-	-	-	-	-	0.600
Logistics Cost																		
Non Recurring Cost																		

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 20		P-1 Line Item Number / Title: 4868W12002 / Robotics and Applique Systems
		Item Number / Title [DODIC]: R12154 / Squad Multipurpose Equipment Transport (SMET)
ID Code (A=Service Ready, B=Not Service Ready) : B		MDAP/MAIS Code:

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
Logistics Data Deliverables	-	-	-	-	-	-	-	-	0.600	-	-	0.845	-	-	-	-	-	0.845
<i>Subtotal: Non Recurring Cost</i>	-	-	-	-	-	-	-	-	0.600	-	-	0.845	-	-	-	-	-	0.845
<i>Subtotal: Logistics Cost</i>	-	-	-	-	-	-	-	-	0.600	-	-	0.845	-	-	-	-	-	0.845
Support - Contractor Logistics Support (CLS) Cost																		
Oversight	-	-	-	-	-	-	-	-	0.500	-	-	0.650	-	-	-	-	-	0.650
<i>Subtotal: Support - Contractor Logistics Support (CLS) Cost</i>	-	-	-	-	-	-	-	-	0.500	-	-	0.650	-	-	-	-	-	0.650
Support - Program Management Cost																		
Government Management	-	-	-	-	-	-	-	-	0.618	-	-	1.200	-	-	-	-	-	1.200
<i>Subtotal: Support - Program Management Cost</i>	-	-	-	-	-	-	-	-	0.618	-	-	1.200	-	-	-	-	-	1.200
Gross/Weapon System Cost	-	-	-	-	-	-	141.419	62	8.768	175.553	190	33.355	-	-	-	175.553	190	33.355

Remarks:

In FY 2021 \$0.356 million in Reimbursable Manpower for line R12154000 (Small Multipurpose Equipment Transport, S-MET) has been realigned from Reimbursable Civilian Funding to Direct Operations and Maintenance. Program support costs have been accurately updated to reflect the realignments; overall increase in program support cost due to ramp up in production.

Militarization and updates documented by the user in the requirements document resulted in an Unit Cost increase.

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Army	Quantity	-	62	190	-	190
	Total Obligation Authority	-	8.768	33.355	-	33.355
Total: Secondary Distribution	Quantity	-	62	190	-	190
	Total Obligation Authority	-	8.768	33.355	-	33.355

(†) indicates the presence of a P-5a

UNCLASSIFIED

Exhibit P-5a, Procurement History and Planning: PB 2021 Army							Date: February 2020				
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 20			P-1 Line Item Number / Title: 4868W12002 / Robotics and Applique Systems				Item Number / Title [DODIC]: R12154 / Squad Multipurpose Equipment Transport (SMET)				

Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty <i>(Each)</i>	Unit Cost <i>(\$ K)</i>	Specs Avail Now?	Date Revision Available	RFP Issue Date
S-MET Production Systems ^(†)		2020	TBD / TBD	Option / FP	Warren, MI	Apr 2020	Jan 2021	62	100.000	Y		Jan 2020
S-MET Production Systems ^(†)		2021	TBD / TBD	Option / FP	Warren, MI	Nov 2020	Aug 2021	238	120.000	Y		Jan 2020

^(†) indicates the presence of a P-21

Remarks:

Changes between FY 2020 and FY 2021 is to meet the production quantities and fielding requirements in the approved Abbreviated Capability Development Document. Pre-production Qualification Testing (PPQT) and Log Development needs to be completed to obtain approval from the Decision Authority to enter into production resulting in a 3 month delay of production. Original Production Contract award was protested and is in the process of being terminated. Dates above reflect the re-solicitation of the SMET Production contract.

UNCLASSIFIED

Exhibit P-21, Production Schedule: PB 2021 Army			Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 20		P-1 Line Item Number / Title: 4868W12002 / Robotics and Applique Systems	
			Item Number / Title [DODIC]: R12154 / Squad Multipurpose Equipment Transport (SMET)

Cost Elements <i>(Units in Each)</i>						Fiscal Year 2020												Fiscal Year 2021												B A L A N C E		
O C C #	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2019	BAL DUE AS OF 1 OCT	Calendar Year 2020												Calendar Year 2021													
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G		S E P	
S-MET Production Systems																																
	1	2020	ARMY	62	0	62																										0
	1	2021	ARMY	238	0	238																										198
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P		

UNCLASSIFIED

Exhibit P-21, Production Schedule: PB 2021 Army															Date: February 2020														
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 20										P-1 Line Item Number / Title: 4868W12002 / Robotics and Applique Systems										Item Number / Title [DODIC]: R12154 / Squad Multipurpose Equipment Transport (SMET)									

Cost Elements <i>(Units in Each)</i>							Fiscal Year 2022										Fiscal Year 2023										B A L A N C E				
O C C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2021	BAL DUE AS OF 1 OCT	Calendar Year 2022										Calendar Year 2023														
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y		J U N	J U L	A U G	S E P
S-MET Production Systems																															
1		2020	ARMY	62	62	0																								0	
1		2021	ARMY	238	40	198	20	20	20	20	20	20	20	20	20	18															0
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	

UNCLASSIFIED

Exhibit P-21, Production Schedule: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 20		P-1 Line Item Number / Title: 4868W12002 / Robotics and Applique Systems
		Item Number / Title [DODIC]: R12154 / Squad Multipurpose Equipment Transport (SMET)

MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Month)			Procurement Leadtime (Months)							
		MSR For 2021	1-8-5 For 2021	MAX For 2021	Initial				Reorder			
					ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1	ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1
1	TBD - TBD	5	15	20	0	2	6	8	0	2	6	8

"A" in the Delivery Schedule indicates the Contract Award Date.

Note: Due to space limitations, quantities in the Exhibit P-21 delivery calendar are truncated and rounded based on the maximum quantity in the calendar as follows. If the maximum quantity is less than or equal to than 9,999, all quantities are shown as each. If the maximum quantity is between 10,000 and 999,999 all quantities are shown in thousands. If the maximum quantity is between 1,000,000 and 999,999,999 all quantities are shown in millions (rounded to the nearest thousand). If the maximum quantity is equal or greater than 1,000,000,000 all quantities are shown in billions (rounded to the nearest million).

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 20	P-1 Line Item Number / Title: 4868W12002 / Robotics and Applique Systems	Item Number / Title [DODIC]: R67050 / Man Transportable Robotic Sys Inc II (MTRS Inc II)

ID Code (A=Service Ready, B=Not Service Ready) : B	MDAP/MAIS Code:
-----------------------------------------------------------	------------------------

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Procurement Quantity (Units in Each)	38	38	236	493	-	493
Gross/Weapon System Cost (\$ in Millions)	5.567	7.456	36.254	63.976	-	63.976
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	5.567	7.456	36.254	63.976	-	63.976
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	5.567	7.456	36.254	63.976	-	63.976

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (\$ in Millions)	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Thousands)	146.500	196.211	153.619	129.769	-	129.769

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
Hardware Cost																		
Recurring Cost																		
MTRS Robot ^(†)	126.000	2	0.252	126.000	30	3.780	102.000	236	24.072	101.000	493	49.793	-	-	-	101.000	493	49.793
MTRS CBRN kits	-	-	-	-	-	-	22.000	180	3.960	22.000	219	4.818	-	-	-	22.000	219	4.818
MTRS RDS kit	-	-	-	2.000	20	0.040	2.000	56	0.112	2.000	350	0.700	-	-	-	2.000	350	0.700
MTRS initial spares	-	-	-	9.000	20	0.180	9.000	236	2.124	9.000	477	4.293	-	-	-	9.000	477	4.293
TALON 5a Robots	156.000	2	0.312	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Recurring Cost</i>	-	-	0.564	-	-	4.000	-	-	30.268	-	-	59.604	-	-	-	-	-	59.604
<i>Subtotal: Hardware Cost</i>	-	-	0.564	-	-	4.000	-	-	30.268	-	-	59.604	-	-	-	-	-	59.604
Software Cost																		
Recurring Cost																		
MTRS software sustainment	-	-	-	-	-	0.024	-	-	2.200	-	-	1.333	-	-	-	-	-	1.333
<i>Subtotal: Recurring Cost</i>	-	-	-	-	-	0.024	-	-	2.200	-	-	1.333	-	-	-	-	-	1.333
<i>Subtotal: Software Cost</i>	-	-	-	-	-	0.024	-	-	2.200	-	-	1.333	-	-	-	-	-	1.333
Support - Contractor Logistics Support (CLS) Cost																		
Oversight	-	-	-	-	-	0.740	-	-	2.000	-	-	1.195	-	-	-	-	-	1.195
<i>Subtotal: Support - Contractor Logistics Support (CLS) Cost</i>	-	-	-	-	-	0.740	-	-	2.000	-	-	1.195	-	-	-	-	-	1.195
Support - Data Cost																		
Technical Publications	-	-	4.651	-	-	0.182	-	-	0.246	-	-	0.246	-	-	-	-	-	0.246

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 20	P-1 Line Item Number / Title: 4868W12002 / Robotics and Applique Systems	Item Number / Title [DODIC]: R67050 / Man Transportable Robotic Sys Inc II (MTRS Inc II)

ID Code (A=Service Ready, B=Not Service Ready) : B	MDAP/MAIS Code:
-----------------------------------------------------------	------------------------

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
Support Data Data	-	-	-	-	-	0.935	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Support - Data Cost</i>	-	-	4.651	-	-	1.117	-	-	0.246	-	-	0.246	-	-	-	-	-	0.246
Support - Program Management Cost																		
Government Management	-	-	0.352	-	-	1.575	-	-	1.540	-	-	1.598	-	-	-	-	-	1.598
<i>Subtotal: Support - Program Management Cost</i>	-	-	0.352	-	-	1.575	-	-	1.540	-	-	1.598	-	-	-	-	-	1.598
Gross/Weapon System Cost	146.500	38	5.567	196.211	38	7.456	153.619	236	36.254	129.769	493	63.976	-	-	-	129.769	493	63.976

Remarks:

SEPM increases are due to government software sustainment cost during the production and deployment phase. Unit cost saving between FY 2020 and FY 2021 is due to increase in quantities ordered. CBRN and RDS kits exceed the quantity of 2021 robots because EOD units require both kits and Program Office previously purchased 20 robots with no kits.

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Army	Quantity		38	236	113	113
	Total Obligation Authority		7.456	36.254	14.662	14.662
ANG	Quantity		-	-	236	236
	Total Obligation Authority		-	-	30.740	30.740
AR	Quantity		-	-	144	144
	Total Obligation Authority		-	-	18.574	18.574
Total: Secondary Distribution	Quantity		38	236	493	493
	Total Obligation Authority		7.456	36.254	63.976	63.976

(t) indicates the presence of a P-5a

UNCLASSIFIED

Exhibit P-5a, Procurement History and Planning: PB 2021 Army							Date: February 2020					
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 20			P-1 Line Item Number / Title: 4868W12002 / Robotics and Applique Systems				Item Number / Title [DODIC]: R67050 / Man Transportable Robotic Sys Inc II (MTRS Inc II)					

Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty <i>(Each)</i>	Unit Cost <i>(\$ K)</i>	Specs Avail Now?	Date Revision Available	RFP Issue Date
MTRS Robot ^(†)		2019	Endeavor / Chelmsford, MA	C / FFP	Warren, MI	Mar 2019	Jan 2020	30	126.000	N		
MTRS Robot ^(†)		2020	Endeavor / Chelmsford, MA	C / FFP	Warren, MI	Nov 2019	Aug 2020	236	102.000	N		
MTRS Robot ^(†)		2021	Endeavor / Chelmsford, MA	C / FFP	Warren, MI	Nov 2020	Aug 2021	493	101.000	N		

^(†) indicates the presence of a P-21

Remarks:

Lapse in production for Fiscal Year 2021 is filled with other service deliverables.. OEM needs a six month lead time between contract award and production.

UNCLASSIFIED

Exhibit P-21, Production Schedule: PB 2021 Army														Date: February 2020																	
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 20											P-1 Line Item Number / Title: 4868W12002 / Robotics and Applique Systems											Item Number / Title [DODIC]: R67050 / Man Transportable Robotic Sys Inc II (MTRS Inc II)									

Cost Elements <i>(Units in Each)</i>							Fiscal Year 2019												Fiscal Year 2020												B A L A N C E			
O C C #	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2018	BAL DUE AS OF 1 OCT	Calendar Year 2019												Calendar Year 2020															
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P				
MTRS Robot																																		
Prior Years Deliveries: 2																																		
1		2019	ARMY	30	0	30																												
1		2020	ARMY	236	0	236																												
1		2021	ARMY	493	0	493																												

UNCLASSIFIED

Exhibit P-21, Production Schedule: PB 2021 Army															Date: February 2020														
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 20										P-1 Line Item Number / Title: 4868W12002 / Robotics and Applique Systems										Item Number / Title [DODIC]: R67050 / Man Transportable Robotic Sys Inc II (MTRS Inc II)									

Cost Elements <i>(Units in Each)</i>						Fiscal Year 2021														Fiscal Year 2022														BALANCE	
O C C #	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2020	BAL DUE AS OF 1 OCT	Calendar Year 2021														Calendar Year 2022														
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P					
MTRS Robot																																			
Prior Years Deliveries: 2																																			
1	2019	ARMY		30	30	0																													0
1	2020	ARMY		236	30	206	34	34	34	34	34	34	2																						0
1	2021	ARMY		493	0	493		A	-	-	-	-	-	-	-	-	41	41	41	41	41	41	41	41	41	41	41	41	41	41	42			0	
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P					

UNCLASSIFIED

Exhibit P-21, Production Schedule: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 20		P-1 Line Item Number / Title: 4868W12002 / Robotics and Applique Systems
		Item Number / Title [DODIC]: R67050 / Man Transportable Robotic Sys Inc II (MTRS Inc II)

MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Month)			Procurement Leadtime (Months)							
		MSR For 2021	1-8-5 For 2021	MAX For 2021	Initial				Reorder			
					ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1	ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1
1	Endeavor - Chelmsford, MA	15	50	75	0	6	6	12	0	2	6	8

"A" in the Delivery Schedule indicates the Contract Award Date.

Note: Due to space limitations, quantities in the Exhibit P-21 delivery calendar are truncated and rounded based on the maximum quantity in the calendar as follows. If the maximum quantity is less than or equal to than 9,999, all quantities are shown as each. If the maximum quantity is between 10,000 and 999,999 all quantities are shown in thousands. If the maximum quantity is between 1,000,000 and 999,999,999 all quantities are shown in millions (rounded to the nearest thousand). If the maximum quantity is equal or greater than 1,000,000,000 all quantities are shown in billions (rounded to the nearest million).

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 20		P-1 Line Item Number / Title: 4868W12002 / Robotics and Applique Systems
		Item Number / Title [DODIC]: W63798 / Soldier Borne Sensor (SBS)

ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:
---------------------------------------------------------	------------------------

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Procurement Quantity (Units in Each)	859	1,629	1,148	678	-	678
Gross/Weapon System Cost (\$ in Millions)	23.857	24.437	23.362	18.907	-	18.907
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	23.857	24.437	23.362	18.907	-	18.907
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	23.857	24.437	23.362	18.907	-	18.907

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (\$ in Millions)	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Thousands)	27.773	15.001	20.350	27.886	-	27.886

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
Flyaway Cost																		
Recurring Cost																		
Soldier Borne Sensor Hardware ^(†)	21.833	1,081	23.602	20.478	1,141	23.365	18.657	1,148	21.418	22.860	678	15.499	-	-	-	22.860	678	15.499
Program Management Support	-	-	0.255	-	-	0.328	-	-	0.559	-	-	1.266	-	-	-	-	-	1.266
Soldier Borne Sensor Fielding	-	-	-	-	-	0.397	-	-	0.401	-	-	0.303	-	-	-	-	-	0.303
Ancillary Support	-	-	-	-	-	-	-	-	0.694	-	-	-	-	-	-	-	-	-
Engineering Support	-	-	-	-	-	0.347	-	-	0.290	-	-	0.287	-	-	-	-	-	0.287
Initial Spares	-	-	-	-	-	-	-	-	-	-	-	1.552	-	-	-	-	-	1.552
<i>Subtotal: Recurring Cost</i>	-	-	23.857	-	-	24.437	-	-	23.362	-	-	18.907	-	-	-	-	-	18.907
<i>Subtotal: Flyaway Cost</i>	-	-	23.857	-	-	24.437	-	-	23.362	-	-	18.907	-	-	-	-	-	18.907
Gross/Weapon System Cost	27.773	859	23.857	15.001	1,629	24.437	20.350	1,148	23.362	27.886	678	18.907	-	-	-	27.886	678	18.907

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Army	Quantity	1,629	466	521	-	521
	Total Obligation Authority	24.437	16.542	14.517	-	14.517
ANG	Quantity	-	465	157	-	157
	Total Obligation Authority	-	4.650	4.390	-	4.390
AR	Quantity	-	217	-	-	-

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 20	P-1 Line Item Number / Title: 4868W12002 / Robotics and Applique Systems	Item Number / Title [DODIC]: W63798 / Soldier Borne Sensor (SBS)
----------------------------------------------------------------------------------	------------------------------------------------------------------------------------	----------------------------------------------------------------------------

ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:
---------------------------------------------------------	------------------------

Secondary Distribution	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Total Obligation Authority	-	2.170	-	-	-
Total: Secondary Distribution	Quantity 1,629	1,148	678	-	678
Total Obligation Authority	24.437	23.362	18.907	-	18.907

(t) indicates the presence of a P-5a

UNCLASSIFIED

Exhibit P-5a, Procurement History and Planning: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 20	P-1 Line Item Number / Title: 4868W12002 / Robotics and Applique Systems	Item Number / Title [DODIC]: W63798 / Soldier Borne Sensor (SBS)
----------------------------------------------------------------------------------	------------------------------------------------------------------------------------	----------------------------------------------------------------------------

Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty <i>(Each)</i>	Unit Cost <i>(\$ K)</i>	Specs Avail Now?	Date Revision Available	RFP Issue Date
Soldier Borne Sensor Hardware ^(†)		2019	Quantico Tactical / Norway	C / IDIQ	DLA-TS	Dec 2018	Jul 2019	1,141	20.478	Y		
Soldier Borne Sensor Hardware ^(†)		2020	Atlantic Dive Supply (ADS) / Virginia Beach, VA	C / IDIQ	DLA-TS	Mar 2020	Jun 2020	1,148	18.657	Y		
Soldier Borne Sensor Hardware ^(†)		2021	TBD / TBD	C / IDIQ	TBD	Dec 2020	Jul 2021	678	22.860	Y		

^(†) indicates the presence of a P-21

UNCLASSIFIED

Exhibit P-21, Production Schedule: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 20 **P-1 Line Item Number / Title:** 4868W12002 / Robotics and Applique Systems **Item Number / Title [DODIC]:** W63798 / Soldier Borne Sensor (SBS)

Cost Elements <i>(Units in Each)</i>					Fiscal Year 2019												Fiscal Year 2020												B A L A N C E				
O C C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2018	BAL DUE AS OF 1 OCT	Calendar Year 2019												Calendar Year 2020														
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L		A U G	S E P		
Soldier Borne Sensor Hardware																																	
Prior Years Deliveries: 1081																																	
	1	2019	ARMY	1,141	0	1,141		A	-	-	-	-	-	-	-	68	92	109	109	109	109	109	109	109	109	109	109	109	0				
	2	2020	ARMY	1,148	0	1,148																				A	-	-	68	90	90	90	810
	3	2021	ARMY	678	0	678																										678	
							O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S			
							C	O	E	A	E	A	A	A	U	U	U	E	C	O	V	E	E	A	A	J	J	A	S				
							T	V	C	N	B	R	R	Y	N	L	G	P	T	V	C	N	B	R	R	Y	N	L	G	P			

UNCLASSIFIED

Exhibit P-21, Production Schedule: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 20 **P-1 Line Item Number / Title:** 4868W12002 / Robotics and Applique Systems **Item Number / Title [DODIC]:** W63798 / Soldier Borne Sensor (SBS)

Cost Elements <i>(Units in Each)</i>						Fiscal Year 2021												Fiscal Year 2022												B A L A N C E	
O C C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2020	BAL DUE AS OF 1 OCT	Calendar Year 2021												Calendar Year 2022												
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G		S E P
Soldier Borne Sensor Hardware																															
Prior Years Deliveries: 1081																															
1	2019	ARMY		1,141	1,141	0																							0		
2	2020	ARMY		1,148	338	810	100	100	100	100	100	100	100	110															0		
3	2021	ARMY		678	0	678				A	-	-	-	-	-	-	-	23	45	70	85	100	100	80	65	65	45	0			
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	

UNCLASSIFIED

Exhibit P-21, Production Schedule: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 20	P-1 Line Item Number / Title: 4868W12002 / Robotics and Applique Systems	Item Number / Title [DODIC]: W63798 / Soldier Borne Sensor (SBS)
----------------------------------------------------------------------------------	------------------------------------------------------------------------------------	----------------------------------------------------------------------------

MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Month)			Procurement Leadtime (Months)							
		MSR For 2021	1-8-5 For 2021	MAX For 2021	Initial				Reorder			
					ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1	ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1
1	Quantico Tactical - Norway	20	100	200	2	2	7	9	2	2	7	9
2	Atlantic Dive Supply (ADS) - Virginia Beach, VA	38	100	200	2	5	3	8	2	5	3	8
3	TBD - TBD	38	100	200	2	2	7	9	2	2	7	9

"A" in the Delivery Schedule indicates the Contract Award Date.

Note: Due to space limitations, quantities in the Exhibit P-21 delivery calendar are truncated and rounded based on the maximum quantity in the calendar as follows. If the maximum quantity is less than or equal to than 9,999, all quantities are shown as each. If the maximum quantity is between 10,000 and 999,999 all quantities are shown in thousands. If the maximum quantity is between 1,000,000 and 999,999,999 all quantities are shown in millions (rounded to the nearest thousand). If the maximum quantity is equal or greater than 1,000,000,000 all quantities are shown in billions (rounded to the nearest million).

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 20: Engineer (Non-Construction) Equipment	P-1 Line Item Number / Title: 5912M60001 / Remote Demolition Systems
-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	--------------------------------------------------------------------------------

ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
----------------------------------------------------------	-----------------------------------------------	--------------------------------------------

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity <i>(Units in Each)</i>	166	-	-	-	-	-	-	-	-	-	-	166
Gross/Weapon System Cost <i>(\$ in Millions)</i>	31.609	1.748	-	-	-	-	-	-	-	-	-	33.357
Less PY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) <i>(\$ in Millions)</i>	31.609	1.748	-	-	-	-	-	-	-	-	-	33.357
Plus CY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority <i>(\$ in Millions)</i>	31.609	1.748	-	-	-	-	-	-	-	-	-	33.357

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost <i>(\$ in Thousands)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost <i>(\$ in Thousands)</i>	190.416	-	-	-	-	-	-	-	-	-	-	200.946

Description:

Radio Frequency Remote Activation Munition System (RF RAMS)(MK152) M60002 is a radio-controlled wireless firing device that provides the capability to wirelessly control the initiation and the detonation of demolition charges or the remote operation of other items such as laser markers and radio functioning munitions. The basic components of the RF RAMS complete set are (1) MK26 Transmitter with two antennas, (6) MK16 Receivers with antennas and (1) M6 Battery Retainer which provides additional power for the transmitter. RF RAMS has a nominal range of 2 kilometers line-of-sight (LOS) and 5 kilometers LOS with the M6 Battery Retainer. The Shock Tube Initiator (STI) M50 is an associated component/interface that is required when using the MK152 to initiate Modernized Demolition Initiators M19, M21 and M23. This item is Code A, approved for service use.

Secondary Distribution	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
Army	Quantity	-	-	-	-	-	-	-	-
	Total Obligation Authority	1.748	-	-	-	-	-	-	-
Total: Secondary Distribution	Quantity	-	-	-	-	-	-	-	-
	Total Obligation Authority	1.748	-	-	-	-	-	-	-

Justification:

There is no FY 2021 request.

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 20: Engineer (Non-Construction) Equipment	P-1 Line Item Number / Title: 5913R63610 / Render Safe Sets kits Outfits
-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	------------------------------------------------------------------------------------

ID Code (A=Service Ready, B=Not Service Ready): B	Program Elements for Code B Items: N/A	Other Related Program Elements: 0654808A
----------------------------------------------------------	-----------------------------------------------	-------------------------------------------------

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	9	35	44	79	-	-	-	3	Continuing	Continuing
Gross/Weapon System Cost (<i>\$ in Millions</i>)	-	-	102.684	64.583	84.000	148.583	-	-	-	4.994	Continuing	Continuing
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	-	-	102.684	64.583	84.000	148.583	-	-	-	4.994	Continuing	Continuing
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	-	-	102.684	64.583	84.000	148.583	-	-	-	4.994	Continuing	Continuing

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Thousands</i>)	-	-	11,409.333	1,845.229	1,909.091	1,880.797	-	-	-	1,664.667	Continuing	Continuing

Description:

The Explosive Ordnance Disposal (EOD) Render Safe (RS) Sets, Kits, and Outfits (SKO) provides capabilities needed for EOD teams to render safe US and foreign ordnance and improvised explosive devices, enabling ground force commanders to retain freedom of maneuver and secure lines of communications.

EOD RS SKO equips EOD teams with: low light visual augmentation system, dismounted operations protection, localized incident site protection, buried IED detection, dismounted X-ray imager, X-ray generator, trace detection (explosives, CBRN, and drugs), unmanned aerial system, power management, gamma and neutron search and detection, and render safe initiation. The RS SKO kit equips the three (3) EOD teams in a platoon. Each EOD team receives eleven (11) capabilities for a total of thirty-six (36) items in RS SKO kit. Some of the capabilities in the kit are also needed so that the EOD Team Leaders assigned to advise in the Security Force Assistance Brigades (SFABs) can maintain proficiency. The capabilities include electronic countermeasures, dismounted X-Ray imager, and X-Ray generator. The Army Acquisition Objective (AAO) for EOD RS SKO is 176.

Secondary Distribution	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
Army	Quantity	-	9	26	44	70	-	-	3
	Total Obligation Authority	-	102.684	64.484	84.000	148.484	-	-	4.994
ANG	Quantity	-	-	9	-	9	-	-	-
	Total Obligation Authority	-	-	0.099	-	0.099	-	-	-
Total: Secondary Distribution	Quantity	-	9	35	44	79	-	-	3
	Total Obligation Authority	-	102.684	64.583	84.000	148.583	-	-	4.994

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 20: Engineer (Non-Construction) Equipment	P-1 Line Item Number / Title: 5913R63610 / Render Safe Sets kits Outfits
-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	------------------------------------------------------------------------------------

ID Code (A=Service Ready, B=Not Service Ready): B	Program Elements for Code B Items: N/A	Other Related Program Elements: 0654808A
----------------------------------------------------------	-----------------------------------------------	-------------------------------------------------

Line Item MDAP/MAIS Code: N/A

Exhibits Schedule					Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-5	R63701 / Render Safe Sets Kits Outfits	P-5a, P-21	A		- / -	- / -	9 / 102.684	35 / 64.583	44 / 84.000	79 / 148.583
P-40	Total Gross/Weapon System Cost				- / -	- / -	9 / 102.684	35 / 64.583	44 / 84.000	79 / 148.583

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

Justification:
 In accordance with Section 1815 of the FY 2008 National Defense Authorization Act (P.L. 110-181), this item is necessary for use by the active and reserve components of the Armed Forces for homeland defense missions, domestic emergency responses, and providing military support to civil authorities.

The FY 2021 Total Base procurement dollars in the amount of \$64.583 million supports procurement of 35 Render Safe (RS) Sets, Kits, and Outfits (SKOs).

FY 2021 Total Overseas Contingency Operations (OCO) dollars in the amount of of \$84.000 million supports procurement of 44 RS SKOs in support of Operation Inherent Resolve for ISIL.

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 20	P-1 Line Item Number / Title: 5913R63610 / Render Safe Sets kits Outfits	Item Number / Title [DODIC]: R63701 / Render Safe Sets Kits Outfits

ID Code (A=Service Ready, B=Not Service Ready) : A	MDAP/MAIS Code:
-----------------------------------------------------------	------------------------

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Procurement Quantity (Units in Each)	-	-	9	35	44	79
Gross/Weapon System Cost (\$ in Millions)	-	-	102.684	64.583	84.000	148.583
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	-	-	102.684	64.583	84.000	148.583
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	-	-	102.684	64.583	84.000	148.583

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (\$ in Millions)	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Thousands)	-	-	11,409.333	1,845.229	1,909.091	1,880.797

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total			
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	
Hardware Cost																			
Recurring Cost																			
Render Safe (RS) Sets, Kits, and Outfits (SKO) ^(f)	-	-	-	-	-	-	1,909.094	53	101.182	1,102.400	35	38.584	1,909.091	44	84.000	1,551.696	79	122.584	
<i>Subtotal: Recurring Cost</i>	-	-	-	-	-	-	-	-	101.182	-	-	38.584	-	-	84.000	-	-	122.584	
Subtotal: Hardware Cost	-	-	-	-	-	-	-	-	101.182	-	-	38.584	-	-	84.000	-	-	122.584	
Package Fielding Cost																			
Recurring Cost																			
Shipping and Transportation	-	-	-	-	-	-	-	-	0.156	-	-	1.000	-	-	-	-	-	-	1.000
<i>Subtotal: Recurring Cost</i>	-	-	-	-	-	-	-	-	0.156	-	-	1.000	-	-	-	-	-	-	1.000
Subtotal: Package Fielding Cost	-	-	-	-	-	-	-	-	0.156	-	-	1.000	-	-	-	-	-	-	1.000
Support - Acceptance Testing Cost																			
First Article Test	-	-	-	-	-	-	-	-	0.050	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Support - Acceptance Testing Cost</i>	-	-	-	-	-	-	-	-	0.050	-	-	-	-	-	-	-	-	-	-
Support - Initial Spares and Repair Parts Cost																			
Initial Spares and Repair Parts	-	-	-	-	-	-	-	-	0.217	-	-	14.865	-	-	-	-	-	-	14.865
<i>Subtotal: Support - Initial Spares and Repair Parts Cost</i>	-	-	-	-	-	-	-	-	0.217	-	-	14.865	-	-	-	-	-	-	14.865

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army												Date: February 2020					
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 20						P-1 Line Item Number / Title: 5913R63610 / Render Safe Sets kits Outfits						Item Number / Title [DODIC]: R63701 / Render Safe Sets Kits Outfits					
ID Code (A=Service Ready, B=Not Service Ready) : A												MDAP/MAIS Code:					

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
Support - New Equipment Training (NET) Cost																		
Equipment	-	-	-	-	-	-	-	-	0.131	-	-	1.000	-	-	-	-	-	1.000
<i>Subtotal: Support - New Equipment Training (NET) Cost</i>	-	-	-	-	-	-	-	-	0.131	-	-	1.000	-	-	-	-	-	1.000
Support - Production Engineering Cost																		
Production Engineering	-	-	-	-	-	-	-	-	0.100	-	-	4.000	-	-	-	-	-	4.000
<i>Subtotal: Support - Production Engineering Cost</i>	-	-	-	-	-	-	-	-	0.100	-	-	4.000	-	-	-	-	-	4.000
Support - Program Management Cost																		
Government Management	-	-	-	-	-	-	-	-	0.848	-	-	5.134	-	-	-	-	-	5.134
<i>Subtotal: Support - Program Management Cost</i>	-	-	-	-	-	-	-	-	0.848	-	-	5.134	-	-	-	-	-	5.134
Gross/Weapon System Cost	-	-	-	-	-	-	11,409.333	9	102.684	1,845.229	35	64.583	1,909.091	44	84.000	1,880.797	79	148.583

Remarks:
FY 2020 support costs were developed early in the program and have been scrutinized. The FY 2021 support cost reflect more refined and realistic support costs.

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Army	Quantity	-	9	26	44	70
	Total Obligation Authority	-	102.684	64.484	84.000	148.484
ANG	Quantity	-	-	9	-	9
	Total Obligation Authority	-	-	0.099	-	0.099
Total: Secondary Distribution	Quantity	-	9	35	44	79
	Total Obligation Authority	-	102.684	64.583	84.000	148.583

(t) indicates the presence of a P-5a

UNCLASSIFIED

Exhibit P-5a, Procurement History and Planning: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 20	P-1 Line Item Number / Title: 5913R63610 / Render Safe Sets kits Outfits	Item Number / Title [DODIC]: R63701 / Render Safe Sets Kits Outfits
----------------------------------------------------------------------------------	------------------------------------------------------------------------------------	-------------------------------------------------------------------------------

Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty <i>(Each)</i>	Unit Cost <i>(\$ K)</i>	Specs Avail Now?	Date Revision Available	RFP Issue Date
Render Safe (RS) Sets, Kits, and Outfits (SKO) ^(†)		2020	TBD / TBD	MIPR	Philadelphia, PA	Jun 2020	Jan 2021	53	1,909.094	N		
Render Safe (RS) Sets, Kits, and Outfits (SKO) ^(†)		2021	TBD / TBD	MIPR	Philadelphia, PA	Jun 2021	Jan 2022	35	1,102.400	N		

^(†) indicates the presence of a P-21

Remarks:

Acquire commercial off-the-shelf systems (COTs) using Defense Logistics Agency (DLA) and other Army contract vehicles.

UNCLASSIFIED

Exhibit P-21, Production Schedule: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 20	P-1 Line Item Number / Title: 5913R63610 / Render Safe Sets kits Outfits	Item Number / Title [DODIC]: R63701 / Render Safe Sets Kits Outfits
----------------------------------------------------------------------------------	------------------------------------------------------------------------------------	-------------------------------------------------------------------------------

Cost Elements <i>(Units in Each)</i>						Fiscal Year 2022										Fiscal Year 2023										BALANCE				
O C C #	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2021	BAL DUE AS OF 1 OCT	Calendar Year 2022										Calendar Year 2023													
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R		M A Y	J U N	J U L	A U G
Render Safe (RS) Sets, Kits, and Outfits (SKO)																														
	1	2020	ARMY	53	45	8	5	3																					0	
	1	2021	ARMY	35	0	35	-	-	-	7	7	7	7	7															0	
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P

UNCLASSIFIED

Exhibit P-21, Production Schedule: PB 2021 Army								Date: February 2020				
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 20				P-1 Line Item Number / Title: 5913R63610 / Render Safe Sets kits Outfits				Item Number / Title [DODIC]: R63701 / Render Safe Sets Kits Outfits				
MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Month)			Procurement Leadtime (Months)							
		MSR For 2021	1-8-5 For 2021	MAX For 2021	Initial				Reorder			
					ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1	ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1
1	TBD - TBD	1	5	7	6	6	6	12	3	3	3	6

"A" in the Delivery Schedule indicates the Contract Award Date.
Note: Due to space limitations, quantities in the Exhibit P-21 delivery calendar are truncated and rounded based on the maximum quantity in the calendar as follows. If the maximum quantity is less than or equal to than 9,999, all quantities are shown as each. If the maximum quantity is between 10,000 and 999,999 all quantities are shown in thousands. If the maximum quantity is between 1,000,000 and 999,999,999 all quantities are shown in millions (rounded to the nearest thousand). If the maximum quantity is equal or greater than 1,000,000,000 all quantities are shown in billions (rounded to the nearest million).

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 20: Engineer (Non-Construction) Equipment	P-1 Line Item Number / Title: 5943MA7700 / < \$5M, Countermining Equipment
-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------

ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
----------------------------------------------------------	-----------------------------------------------	--------------------------------------------

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	7	40	-	-	-	-	-	-	-	-	-	47
Gross/Weapon System Cost (<i>\$ in Millions</i>)	67.127	5.914	-	-	-	-	-	-	-	-	-	73.041
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	67.127	5.914	-	-	-	-	-	-	-	-	-	73.041
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	67.127	5.914	-	-	-	-	-	-	-	-	-	73.041

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Thousands</i>)	9,589.571	147.850	-	-	-	-	-	-	-	-	-	1,554.064

Description:

The <\$5M Countermining Equipment line covers the procurement of countermining equipment including detectors, neutralizing devices, training aids and devices to support New Equipment Training (NET), initial entry training, and institutional training, as well as any related tasks.

The M303 Blasting Demolition Kit (BDK) contains shaped charge liners and other demolition items that are used to fabricate customized demolitions in the field. The kit can be procured as a whole kit or as individual components.

Secondary Distribution	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
Army	Quantity	-	-	-	-	-	-	-	-
	Total Obligation Authority	4.647	-	-	-	-	-	-	-
ANG	Quantity	22	-	-	-	-	-	-	-
	Total Obligation Authority	0.697	-	-	-	-	-	-	-
AR	Quantity	18	-	-	-	-	-	-	-
	Total Obligation Authority	0.570	-	-	-	-	-	-	-
Total: Secondary Distribution	Quantity	40	-	-	-	-	-	-	-
	Total Obligation Authority	5.914	-	-	-	-	-	-	-

Justification:

There is no FY 2021 funding request.

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 20: Engineer (Non-Construction) Equipment		P-1 Line Item Number / Title: 5943MA7700 / < \$5M, Countermining Equipment
ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
Line Item MDAP/MAIS Code: N/A		
In accordance with Section 1815 of the FY 2008 National Defense Authorization Act (P.L. 110-181), this item is necessary for use by the active and reserve components of the Armed Forces for homeland defense missions, domestic emergency responses and providing military support to civil authorities.		

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 20: Engineer (Non-Construction) Equipment	P-1 Line Item Number / Title: 8500R12001 / Family of Boats and Motors
-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------

ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
----------------------------------------------------------	-----------------------------------------------	--------------------------------------------

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	9	4	-	-	-	-	-	-	-	-	-	13
Gross/Weapon System Cost (<i>\$ in Millions</i>)	16.287	8.006	5.745	5.289	-	5.289	-	-	-	-	-	35.327
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	16.287	8.006	5.745	5.289	-	5.289	-	-	-	-	-	35.327
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	16.287	8.006	5.745	5.289	-	5.289	-	-	-	-	-	35.327

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Thousands</i>)	1,809.667	2,001.500	-	-	-	-	-	-	-	-	-	2,717.462

Description:

The Family of Boats and Motors (FoBaM) consists of 7-person Inflatable Combat Raiding Craft (I-CRC), 15 person Inflatable Combat Assault Craft (I-CAC), Common Motor, and Rigid Inflatable Boat (RIB). The FoBaM Program supports the critical large scale ground combat operation (GAP #8), division wet gap crossing. The 7-person I-CRC, 15-person I-CAC, Common Motor and Rigid Inflatable Boat (RIB) replaces current outdated legacy systems to support Soldier lethality. Army Acquisition Objective (AAO) for FoBaM is: 7-person I-CRC 394, 15-person I-CAC 563, Common Motor 967 and RIB 23. The AAO quantities increased by 60 per program for Common Motors and 15-Man Boat.

Secondary Distribution	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
Army	Quantity	4	-	-	-	-	-	-	-
	Total Obligation Authority	5.794	3.235	1.520	-	1.520	-	-	-
ANG	Quantity	-	-	-	-	-	-	-	-
	Total Obligation Authority	1.542	1.926	1.473	-	1.473	-	-	-
AR	Quantity	-	-	-	-	-	-	-	-
	Total Obligation Authority	0.670	0.584	2.296	-	2.296	-	-	-
Total: Secondary Distribution	Quantity	4	-	-	-	-	-	-	-
	Total Obligation Authority	8.006	5.745	5.289	-	5.289	-	-	-

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity:
2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 20: Engineer (Non-Construction) Equipment

P-1 Line Item Number / Title:
8500R12001 / Family of Boats and Motors

ID Code (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** N/A **Other Related Program Elements:** N/A

Line Item MDAP/MAIS Code: N/A

Exhibits Schedule					Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-5	R12010 / FoBAM Common Motor	P-5a	A		- / 5.373	- / 4.042	- / 1.514	- / 1.808	- / -	- / 1.808
P-5	R12015 / FoBAM Rigid Inflatable Boat	P-5a	A		9 / 5.537	4 / 1.278	- / -	- / -	- / -	- / -
P-5	R12016 / FoBAM 7-Man Boat	P-5a	A		- / 0.957	- / 1.209	- / 1.194	- / 1.473	- / -	- / 1.473
P-5	R12028 / FoBAM 15-Man Boat	P-5a			- / 4.420	- / 1.477	- / 3.037	- / 2.008	- / -	- / 2.008
P-40	Total Gross/Weapon System Cost				9 / 16.287	4 / 8.006	- / 5.745	- / 5.289	- / -	- / 5.289

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

Justification:

FY21 Base procurement dollars in the amount of \$5.289 million supports fielding of systems to units and the procurement of a quantity of 86 Common Motors, 61 7-person I-CRC, and 76 15-person I-CAC. Providing Soldiers these systems will give them the capability to complete required missions, provide support to civil authorities, and deter and defeat hybrid threats in support of Army requirements. All systems support, both engineer and special forces, contribute in a variety of operations such as: Assault landings; reconnaissance and river crossing operations; infiltration and exfiltration; long-range surveillance; amphibious raid, surface swimming, dive, submarine, ravine, anti-mine, bridging, and air operations; underwater construction; underwater repair work; dam and pier repairs; light salvage; and humanitarian aid/disaster relief.

The FoBaM Program supports the critical large scale ground combat operation Gap #8, division wet gap crossing.

There are no FY21 President's Budget (PB) dollars for RIB.

In accordance with Section 1815 of the FY 2008 National Defense Authorization Act (P.L. 110-181), these item are necessary for use by the active and reserve components of the Armed Forces for homeland defense missions, domestic emergency responses, and providing military support to civil authorities.

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army													Date: February 2020								
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 20						P-1 Line Item Number / Title: 8500R12001 / Family of Boats and Motors						Item Number / Title [DODIC]: R12010 / FoBAM Common Motor									
ID Code (A=Service Ready, B=Not Service Ready) : A									MDAP/MAIS Code:												
Resource Summary				Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
Procurement Quantity (Units in Each)				-			-			-			-			-			-		
Gross/Weapon System Cost (\$ in Millions)				5.373			4.042			1.514			1.808			-			1.808		
Less PY Advance Procurement (\$ in Millions)				-			-			-			-			-			-		
Net Procurement (P-1) (\$ in Millions)				5.373			4.042			1.514			1.808			-			1.808		
Plus CY Advance Procurement (\$ in Millions)				-			-			-			-			-			-		
Total Obligation Authority (\$ in Millions)				5.373			4.042			1.514			1.808			-			1.808		
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>																					
Initial Spares (\$ in Millions)				-			-			-			-			-			-		
Gross/Weapon System Unit Cost (\$ in Thousands)				114.319			32.079			13.398			21.023			-			21.023		
Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.																					
Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total					
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)			
Hardware Cost																					
Recurring Cost																					
Common Motor ⁽¹⁾	12.638	423	5.346	14.450	140	2.023	14.658	76	1.114	15.395	86	1.324	-	-	-	15.395	86	1.324			
Subtotal: Recurring Cost	-	-	5.346	-	-	2.023	-	-	1.114	-	-	1.324	-	-	-	-	-	1.324			
Subtotal: Hardware Cost	-	-	5.346	-	-	2.023	-	-	1.114	-	-	1.324	-	-	-	-	-	1.324			
Support - Fielding Cost																					
Fielding	-	-	-	-	-	0.267	-	-	-	-	-	0.185	-	-	-	-	-	0.185			
Subtotal: Support - Fielding Cost	-	-	-	-	-	0.267	-	-	-	-	-	0.185	-	-	-	-	-	0.185			
Support - Logistics Cost																					
Integrated Logistics Support	-	-	-	-	-	1.719	-	-	0.068	-	-	0.068	-	-	-	-	-	0.068			
Subtotal: Support - Logistics Cost	-	-	-	-	-	1.719	-	-	0.068	-	-	0.068	-	-	-	-	-	0.068			
Support - Production Engineering Cost																					
Production Engineering	-	-	-	-	-	-	-	-	0.108	-	-	0.231	-	-	-	-	-	0.231			
Subtotal: Support - Production Engineering Cost	-	-	-	-	-	-	-	-	0.108	-	-	0.231	-	-	-	-	-	0.231			
Support - Program Management Cost																					
Government Management	-	-	0.027	-	-	0.033	-	-	0.015	-	-	-	-	-	-	-	-	-			
Subtotal: Support - Program Management Cost	-	-	0.027	-	-	0.033	-	-	0.015	-	-	-	-	-	-	-	-	-			
Support - Training Cost																					

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army												Date: February 2020					
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 20						P-1 Line Item Number / Title: 8500R12001 / Family of Boats and Motors						Item Number / Title [DODIC]: R12010 / FoBAM Common Motor					
ID Code (A=Service Ready, B=Not Service Ready) : A												MDAP/MAIS Code:					

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
Equipment	-	-	-	-	-	-	-	-	0.209	-	-	-	-	-	-	-	-	-
<i>Subtotal: Support - Training Cost</i>	-	-	-	-	-	-	-	-	0.209	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost	114.319	-	5.373	32.079	-	4.042	13.398	-	1.514	21.023	-	1.808	-	-	-	21.023	-	1.808

Remarks:

FY21 is the last year of funds for this program. FY21 support costs include fielding and logistics support for FY22.

Prior Years, FY19 and FY20 P40 Resource Summary quantities are incorrect. P5 Cost Element quantities are correct.

FY19 and FY20 Secondary Distribution (Compo Spit) are incorrect.

P-40 Resource Summary for the FoBAM Program has incorrect quantities and has not populated quantities from P-5's.

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Army	Quantity	-	-	-	-	-
	Total Obligation Authority	2.946	0.951	1.520	-	1.520
ANG	Quantity	-	-	-	-	-
	Total Obligation Authority	0.721	0.404	-	-	-
AR	Quantity	-	-	-	-	-
	Total Obligation Authority	0.375	0.159	0.288	-	0.288
Total: Secondary Distribution	Quantity	-	-	-	-	-
	Total Obligation Authority	4.042	1.514	1.808	-	1.808

(t) indicates the presence of a P-5a

UNCLASSIFIED

Exhibit P-5a, Procurement History and Planning: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 20	P-1 Line Item Number / Title: 8500R12001 / Family of Boats and Motors	Item Number / Title [DODIC]: R12010 / FoBAM Common Motor
----------------------------------------------------------------------------------	---------------------------------------------------------------------------------	--------------------------------------------------------------------

Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty <i>(Each)</i>	Unit Cost <i>(\$ K)</i>	Specs Avail Now?	Date Revision Available	RFP Issue Date
Common Motor		2019	Atlantic Diving Supply / Virginia Beach	C / IDIQ	Philadelphia, PA	Apr 2019	Feb 2020	140	14.450	Y		Apr 2019
Common Motor		2020	Atlantic Diving Supply / Virginia Beach	C / IDIQ	Philadelphia, PA	Jan 2020	Feb 2020	76	14.658	Y		Dec 2019
Common Motor		2021	Atlantic Diving Supply / Virginia Beach	C / IDIQ	Philadelphia, PA	Jan 2021	Feb 2021	86	15.395	Y		Dec 2020

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 20		P-1 Line Item Number / Title: 8500R12001 / Family of Boats and Motors
		Item Number / Title [DODIC]: R12015 / FoBAM Rigid Inflatable Boat

ID Code (A=Service Ready, B=Not Service Ready) : A	MDAP/MAIS Code:
-----------------------------------------------------------	------------------------

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Procurement Quantity (Units in Each)	9	4	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	5.537	1.278	-	-	-	-
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	5.537	1.278	-	-	-	-
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	5.537	1.278	-	-	-	-

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (\$ in Millions)	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Thousands)	615.222	319.500	-	-	-	-

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
Hardware Cost																		
Recurring Cost																		
Rigid Inflatable Boat ⁽¹⁾	368.000	15	5.520	282.000	1	0.282	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Recurring Cost	-	-	5.520	-	-	0.282	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Hardware Cost	-	-	5.520	-	-	0.282	-	-	-	-	-	-	-	-	-	-	-	-
Support - Fielding Cost																		
Fielding	-	-	-	-	-	0.425	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Support - Fielding Cost	-	-	-	-	-	0.425	-	-	-	-	-	-	-	-	-	-	-	-
Support - Logistics Cost																		
Integrated Logistics Support	-	-	-	-	-	0.415	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Support - Logistics Cost	-	-	-	-	-	0.415	-	-	-	-	-	-	-	-	-	-	-	-
Support - Program Management Cost																		
Government Management	-	-	0.017	-	-	0.156	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Support - Program Management Cost	-	-	0.017	-	-	0.156	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost	615.222	9	5.537	319.500	4	1.278	-	-	-	-	-	-	-	-	-	-	-	-

Remarks:

FY19 is the last year of funds for this program. FY19 support costs include fielding, engineering, and logistics support for FY20.

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 20	P-1 Line Item Number / Title: 8500R12001 / Family of Boats and Motors	Item Number / Title [DODIC]: R12015 / FoBAM Rigid Inflatable Boat
ID Code (A=Service Ready, B=Not Service Ready) : A		MDAP/MAIS Code:

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Army	Quantity	4	-	-	-	-
	Total Obligation Authority	1.278	-	-	-	-
Total:	Quantity	4	-	-	-	-
Secondary Distribution	Total Obligation Authority	1.278	-	-	-	-

(t) indicates the presence of a P-5a

UNCLASSIFIED

Exhibit P-5a, Procurement History and Planning: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 20	P-1 Line Item Number / Title: 8500R12001 / Family of Boats and Motors	Item Number / Title [DODIC]: R12015 / FoBAM Rigid Inflatable Boat
----------------------------------------------------------------------------------	---------------------------------------------------------------------------------	-----------------------------------------------------------------------------

Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty <i>(Each)</i>	Unit Cost <i>(\$ K)</i>	Specs Avail Now?	Date Revision Available	RFP Issue Date
Rigid Inflatable Boat		2019	DEPARTMENT OF THE NAVY / VIRGINIA BEACH, VA	C / FFP	VIRGINIA BEACH, VA	Jan 2019	Aug 2019	1	282.000	N		

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army											Date: February 2020							
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 20						P-1 Line Item Number / Title: 8500R12001 / Family of Boats and Motors					Item Number / Title [DODIC]: R12016 / FoBAM 7-Man Boat							
ID Code (A=Service Ready, B=Not Service Ready) : A						MDAP/MAIS Code:												
Resource Summary				Prior Years		FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO		FY 2021 Total	
Procurement Quantity (Units in Each)				-		-			-			-			-		-	
Gross/Weapon System Cost (\$ in Millions)				0.957		1.209			1.194			1.473			-		1.473	
Less PY Advance Procurement (\$ in Millions)				-		-			-			-			-		-	
Net Procurement (P-1) (\$ in Millions)				0.957		1.209			1.194			1.473			-		1.473	
Plus CY Advance Procurement (\$ in Millions)				-		-			-			-			-		-	
Total Obligation Authority (\$ in Millions)				0.957		1.209			1.194			1.473			-		1.473	
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>																		
Initial Spares (\$ in Millions)				-		-			-			-			-		-	
Gross/Weapon System Unit Cost (\$ in Thousands)				79.750		17.779			13.416			24.148			-		24.148	

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
Hardware Cost																		
Recurring Cost																		
7-person I-CRC ^(†)	7.740	123	0.952	-	-	-	15.212	52	0.791	15.967	61	0.974	-	-	-	15.967	61	0.974
Subtotal: Recurring Cost	-	-	0.952	-	-	-	-	-	0.791	-	-	0.974	-	-	-	-	-	0.974
Subtotal: Hardware Cost	-	-	0.952	-	-	-	-	-	0.791	-	-	0.974	-	-	-	-	-	0.974
Support - Fielding Cost																		
Fielding	-	-	-	-	-	0.134	-	-	-	-	-	0.185	-	-	-	-	-	0.185
Subtotal: Support - Fielding Cost	-	-	-	-	-	0.134	-	-	-	-	-	0.185	-	-	-	-	-	0.185
Support - Logistics Cost																		
Integrated Logistics Support	-	-	-	-	-	0.132	-	-	0.068	-	-	0.068	-	-	-	-	-	0.068
Subtotal: Support - Logistics Cost	-	-	-	-	-	0.132	-	-	0.068	-	-	0.068	-	-	-	-	-	0.068
Support - Program Management Cost																		
Government Management	-	-	0.005	-	-	0.943	-	-	0.059	-	-	0.201	-	-	-	-	-	0.201
Subtotal: Support - Program Management Cost	-	-	0.005	-	-	0.943	-	-	0.059	-	-	0.201	-	-	-	-	-	0.201
Support - Quality Assurance Cost																		
Quality Assurance	-	-	-	-	-	-	-	-	-	-	-	0.045	-	-	-	-	-	0.045
Subtotal: Support - Quality Assurance Cost	-	-	-	-	-	-	-	-	-	-	-	0.045	-	-	-	-	-	0.045
Support - Training Cost																		

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army												Date: February 2020					
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 20						P-1 Line Item Number / Title: 8500R12001 / Family of Boats and Motors						Item Number / Title [DODIC]: R12016 / FoBAM 7-Man Boat					
ID Code (A=Service Ready, B=Not Service Ready) : A												MDAP/MAIS Code:					

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
Equipment	-	-	-	-	-	-	-	-	0.276	-	-	-	-	-	-	-	-	-
<i>Subtotal: Support - Training Cost</i>	-	-	-	-	-	-	-	-	0.276	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost	79.750	-	0.957	17.779	-	1.209	13.416	-	1.194	24.148	-	1.473	-	-	-	24.148	-	1.473

Remarks:

FY21 is the last year of funds for this program. FY21 support costs include fielding and logistics support for FY22.

Prior Years, FY19 and FY20 quantities are incorrect. P5 Cost Element quantities are correct.

FY19 and FY20 Secondary Distribution (Compo Splits) for are incorrect.

P-40 Resource Summary for the FoBAM Program has incorrect quantities and has not populated quantities from P-5's.

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Army	Quantity	-	-	-	-	-
	Total Obligation Authority	0.979	0.733	-	-	-
ANG	Quantity	-	-	-	-	-
	Total Obligation Authority	0.230	0.461	1.473	-	1.473
Total: Secondary Distribution	Quantity	-	-	-	-	-
	Total Obligation Authority	1.209	1.194	1.473	-	1.473

(t) indicates the presence of a P-5a

UNCLASSIFIED

Exhibit P-5a, Procurement History and Planning: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 20	P-1 Line Item Number / Title: 8500R12001 / Family of Boats and Motors	Item Number / Title [DODIC]: R12016 / FoBAM 7-Man Boat
----------------------------------------------------------------------------------	---------------------------------------------------------------------------------	------------------------------------------------------------------

Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty <i>(Each)</i>	Unit Cost <i>(\$ K)</i>	Specs Avail Now?	Date Revision Available	RFP Issue Date
7-person I-CRC		2020	ATLANTIC DIVING SUPPLY / VIRGINIA BEACH, VA	C / IDIQ	Philadelphia, PA	Jan 2020	Feb 2020	52	15.212	Y		Apr 2019
7-person I-CRC		2021	ATLANTIC DIVING SUPPLY / VIRGINIA BEACH, VA	C / IDIQ	Philadelphia, PA	Jan 2021	Feb 2021	61	15.967	Y		Dec 2020

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 20		P-1 Line Item Number / Title: 8500R12001 / Family of Boats and Motors
		Item Number / Title [DODIC]: R12028 / FoBAM 15-Man Boat

ID Code (A=Service Ready, B=Not Service Ready) :				MDAP/MAIS Code:					
Resource Summary				Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Procurement Quantity (Units in Each)				-	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)				4.420	1.477	3.037	2.008	-	2.008
Less PY Advance Procurement (\$ in Millions)				-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)				4.420	1.477	3.037	2.008	-	2.008
Plus CY Advance Procurement (\$ in Millions)				-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)				4.420	1.477	3.037	2.008	-	2.008
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>									
Initial Spares (\$ in Millions)				-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Thousands)				33.740	12.207	16.779	26.421	-	26.421

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
Hardware Cost																		
Recurring Cost																		
15-person I-CAC ^(†)	12.190	343	4.181	10.400	140	1.456	18.563	142	2.636	19.487	76	1.481	-	-	-	19.487	76	1.481
<i>Subtotal: Recurring Cost</i>	-	-	4.181	-	-	1.456	-	-	2.636	-	-	1.481	-	-	-	-	-	1.481
<i>Subtotal: Hardware Cost</i>	-	-	4.181	-	-	1.456	-	-	2.636	-	-	1.481	-	-	-	-	-	1.481
Support - Fielding Cost																		
Fielding	-	-	0.025	-	-	-	-	-	0.120	-	-	0.185	-	-	-	-	-	0.185
<i>Subtotal: Support - Fielding Cost</i>	-	-	0.025	-	-	-	-	-	0.120	-	-	0.185	-	-	-	-	-	0.185
Support - Production Engineering Cost																		
Production Engineering	-	-	0.020	-	-	-	-	-	-	-	-	0.150	-	-	-	-	-	0.150
<i>Subtotal: Support - Production Engineering Cost</i>	-	-	0.020	-	-	-	-	-	-	-	-	0.150	-	-	-	-	-	0.150
Support - Program Management Cost																		
Government Management	-	-	0.117	-	-	0.021	-	-	-	-	-	0.147	-	-	-	-	-	0.147
<i>Subtotal: Support - Program Management Cost</i>	-	-	0.117	-	-	0.021	-	-	-	-	-	0.147	-	-	-	-	-	0.147
Support - Quality Assurance Cost																		
Quality Assurance	-	-	0.077	-	-	-	-	-	0.080	-	-	0.045	-	-	-	-	-	0.045
<i>Subtotal: Support - Quality Assurance Cost</i>	-	-	0.077	-	-	-	-	-	0.080	-	-	0.045	-	-	-	-	-	0.045
Support - Training Cost																		

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army												Date: February 2020					
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 20						P-1 Line Item Number / Title: 8500R12001 / Family of Boats and Motors						Item Number / Title [DODIC]: R12028 / FoBAM 15-Man Boat					
ID Code (A=Service Ready, B=Not Service Ready) :												MDAP/MAIS Code:					

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
Equipment	-	-	-	-	-	-	-	-	0.201	-	-	-	-	-	-	-	-	-
<i>Subtotal: Support - Training Cost</i>	-	-	-	-	-	-	-	-	0.201	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost	33.740	-	4.420	12.207	-	1.477	16.779	-	3.037	26.421	-	2.008	-	-	-	26.421	-	2.008

Remarks:
 FY21 is the last year of funds for this program. FY21 support costs include fielding and logistics support for FY22.
 Prior Years, FY19 and FY20 P-40 Resource Summary has incorrect quantities. P-5 Cost Element has correct quantities.
 FY19 P-5 Cost Element Unit Cost and Gross/Weapon System Cost are incorrect. Unit Cost should be \$20,337.00, Gross Weapon/System Cost should be \$2.690M.
 FY19, FY20 and FY21 Secondary Distribution (Compo Splits) have incorrect quantities.
 P-40 Resource Summary for the FoBAM Program has incorrect quantities and has not populated quantities from P-5's.

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Army	Quantity	-	-	-	-	-
	Total Obligation Authority	0.591	1.551	-	-	-
ANG	Quantity	-	-	-	-	-
	Total Obligation Authority	0.591	1.061	-	-	-
AR	Quantity	-	-	-	-	-
	Total Obligation Authority	0.295	0.425	2.008	-	2.008
Total: Secondary Distribution	Quantity	-	-	-	-	-
	Total Obligation Authority	1.477	3.037	2.008	-	2.008

(t) indicates the presence of a P-5a

UNCLASSIFIED

Exhibit P-5a, Procurement History and Planning: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 20	P-1 Line Item Number / Title: 8500R12001 / Family of Boats and Motors	Item Number / Title [DODIC]: R12028 / FoBAM 15-Man Boat
----------------------------------------------------------------------------------	---------------------------------------------------------------------------------	-------------------------------------------------------------------

Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty <i>(Each)</i>	Unit Cost <i>(\$ K)</i>	Specs Avail Now?	Date Revision Available	RFP Issue Date
15-person I-CAC		2019	ATLANTIC DIVING SUPPLY / VIRGINIA BEACH, VA	C / IDIQ	Philadelphia, PA	Jul 2019	Nov 2019	140	10.400	Y		Apr 2019
15-person I-CAC		2020	ATLANTIC DIVING SUPPLY / VIRGINIA BEACH, VA	C / IDIQ	Philadelphia, PA	Jan 2020	Feb 2020	142	18.563	Y		Dec 2019
15-person I-CAC		2021	ATLANTIC DIVING SUPPLY / VIRGINIA BEACH, VA	C / IDIQ	Philadelphia, PA	Jan 2021	Feb 2021	76	19.487	Y		Dec 2020

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 25: Combat Service Support Equipment	P-1 Line Item Number / Title: 0100MF9000 / Heaters and ECU's
--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	------------------------------------------------------------------------

ID Code (A=Service Ready, B=Not Service Ready):	Program Elements for Code B Items: N/A	Other Related Program Elements: 0608804A
--------------------------------------------------------	-----------------------------------------------	-------------------------------------------------

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	1,206	917	617	799	28	827	758	725	739	732	-	6,521
Gross/Weapon System Cost (<i>\$ in Millions</i>)	135.656	10.122	7.344	8.200	0.370	8.570	8.339	8.086	8.164	8.096	-	194.377
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	135.656	10.122	7.344	8.200	0.370	8.570	8.339	8.086	8.164	8.096	-	194.377
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	135.656	10.122	7.344	8.200	0.370	8.570	8.339	8.086	8.164	8.096	-	194.377

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Thousands</i>)	112.484	11.038	11.903	10.263	13.214	10.363	11.001	11.153	11.047	11.060	-	29.808

Description:

This line supports the Army Network Modernization Strategy Line of Effort #4, Command Post (CP). Near term objectives are the delivery of Improved Environmental Control Units (IECUs) to support CP Directed Requirements.

This budget line represents the Army's family of Improved Environmental Control Units (IECUs), commonly known as Air Conditioners. IECUs provide cooling and supplemental heating for Army tents and shelters. Systems range in size from 9,000 to 60,000 British Thermal Units/hour (BTU/hr) and are powered by common electrical currents supplied by both mobile electric power systems and standard commercial facilities. IECUs also provide dehumidification and filtering of air in support of environmentally sensitive electronic equipment in mobile shelters and vans. IECUs support critical electronic equipment that would not support the Army mission without proper environmental control. IECUs support numerous major tactical weapon systems. The majority of the supported weapon systems are command, control, and communication items. Other applications include medical facilities, expeditionary basing, support equipment, satellite communications, intelligence gathering systems, petroleum and water logistics laboratories, electronic shop sets, Test Measurement and Diagnostic Equipment (TMDE), aviation shop sets and topographic support sets.

The IECU program will provide a new generation of Environmental Control Units (ECUs) that use environmentally approved refrigerants, with zero ozone-depleting chemicals (ODCs), to replace the current Military Standard (MIL-STD) Family of ECUs. IECUs are required to replace currently fielded environmental control units in order to comply with statutory and regulatory restrictions on the use of Class II Ozone Depleting Chemicals (ODCs) and to increase the performance of military ECUs. IECUs operate at wider operating temperatures, are more ruggedized than commercial ECUs, and employ embedded diagnostics and automatic safety controls. Technical improvements over existing military-standard ECUs will yield significant fuel and weight savings, reduction in scheduled maintenance, and increased reliability.

- 60,000 (3 phase / 50-60 hertz) BTUH (British Thermal Units per Hour) Army Acquisition Objective (AAO) = 3,039
- 9,000 (single phase / 60 hertz) BTUH AAO = 1,322
- 18,000 (3 phase / 60 hertz / 208V) BTUH AAO = 3,295
- 18,000 (single phase / 60 hertz / 230V) BTUH AAO= 976
- 36,000 (3 phase / 60 hertz) BTUH AAO= 1,037

Note: They are required to fill existing shortages or provide replacement for assets that are over age, non-supportable, and non-repairable. The IECUs are critical to the systems they support. Additionally, IECUs are required to fill urgent shortages on new fieldings of high priority weapon systems. They are used in select shelters which house critical life-saving operations in Combat Support Hospitals and storage of perishable supplies in Brigade Support Battalions. The 9,000 BTU/hr, 18,000 BTU/hr, 36,000 BTU/hr, and 60,000 BTU/hr IECUs provide an EPA compliant capability to the force structure before commercial/

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 25: Combat Service Support Equipment		P-1 Line Item Number / Title: 0100MF9000 / Heaters and ECU's

ID Code (A=Service Ready, B=Not Service Ready):	Program Elements for Code B Items: N/A	Other Related Program Elements: 0608804A
--------------------------------------------------------	-----------------------------------------------	-------------------------------------------------

Line Item MDAP/MAIS Code: N/A

military stocks of previously used refrigerant are exhausted and no longer available. IECUs provide essential air conditioning, dehumidification and filtering of air in support of environmentally sensitive electronic equipment in mobile shelters and vans critical to the CP mission and are a critical component of multiple mobile weapons systems to include PATRIOT, THAAD, and MLRS. Present and emerging command, control, communications, computers, intelligence, surveillance, and reconnaissance (C4ISR) systems require environmental control to moderate the environmental temperatures in which these systems operate.

All OCO funding is Active Component.

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
Army	Quantity	373	282	501	28	529	443	363	370	388
	Total Obligation Authority	7.425	5.709	6.746	0.370	7.116	6.802	6.320	6.363	6.418
ANG	Quantity	364	208	207	-	207	202	217	222	172
	Total Obligation Authority	1.799	1.014	1.009	-	1.009	0.985	1.058	1.083	0.839
AR	Quantity	180	127	91	-	91	113	145	147	172
	Total Obligation Authority	0.898	0.621	0.445	-	0.445	0.552	0.708	0.718	0.839
Total: Secondary Distribution	Quantity	917	617	799	28	827	758	725	739	732
	Total Obligation Authority	10.122	7.344	8.200	0.370	8.570	8.339	8.086	8.164	8.096

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity:
2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 25:
Combat Service Support Equipment **P-1 Line Item Number / Title:**
0100MF9000 / Heaters and ECU's

ID Code (A=Service Ready, B=Not Service Ready): **Program Elements for Code B Items:** N/A **Other Related Program Elements:** 0608804A

Line Item MDAP/MAIS Code: N/A

Exhibits Schedule					Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-5	MF9303 / IMPROVED ENVIRONMENTAL CONTROL UNITS	P-5a			1,206 / 135.656	917 / 10.122	617 / 7.344	799 / 8.200	28 / 0.370	827 / 8.570
P-40	Total Gross/Weapon System Cost				1,206 / 135.656	917 / 10.122	617 / 7.344	799 / 8.200	28 / 0.370	827 / 8.570

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

Justification:
 FY 21 Base procurement dollars in the amount of \$8.200 million supports the family of Improved Environmental Control Units (IECU); funding will procure 129 units of 9,000 BTU/hr (British Thermal Units) IECUs, 322 units of 18,000 BTU/hr 208V IECUs, 89 units of 18,000 BTU/hr 230V IECUs and 102 units of 36,000 BTU/hr IECUs. All IECUs units being procured are required as a component or separately authorized in support of fielded tactical weapon systems.

 FY 21 OCO procurement dollars in the amount of \$0.370 million supports the family of Improved Environmental Control Units (IECU); funding will procure 6 units of 9,000 BTU/hr (British Thermal Units) IECUs, 14 units of 18,000 BTU/hr 208V IECUs, 4 units of 18,000 BTU/hr 230V IECUs and 4 units of 36,000 BTU/hr IECUs. All IECUs units being procured are required as a component or separately authorized in support of fielded tactical weapon systems.

 In FY 2021, \$0.356 million in Reimbursable Manpower for this line has been realigned from Reimbursable Civilian Funding to Direct Operations and Maintenance. Program support costs have been accurately updated to reflect the realignments.

 In accordance with Section 1815 of the FY 2008 National Defense Authorization Act (P.L. 110-181), this item is necessary for use by the active and reserve components of the Armed Forces for homeland defense missions, domestic emergency responses, and providing military support to civil authorities.

 FY21 Base quantities are showing an incorrect quantity of 799. The correct quantity of 642 is showing on the P-5.

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 25		P-1 Line Item Number / Title: 0100MF9000 / Heaters and ECU's
		Item Number / Title [DODIC]: MF9303 / IMPROVED ENVIRONMENTAL CONTROL UNITS

ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:
---------------------------------------------------------	------------------------

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Procurement Quantity (Units in Each)	1,206	917	617	799	28	827
Gross/Weapon System Cost (\$ in Millions)	135.656	10.122	7.344	8.200	0.370	8.570
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	135.656	10.122	7.344	8.200	0.370	8.570
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	135.656	10.122	7.344	8.200	0.370	8.570

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (\$ in Millions)	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Thousands)	112.484	11.038	11.903	10.263	13.214	10.363

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
Flyaway Cost																		
Recurring Cost																		
1. Engineering Support	-	-	22.559	-	-	1.731	-	-	0.752	-	-	1.260	-	-	0.059	-	-	1.319
2. Engineering Change Orders	-	-	5.281	-	-	0.191	-	-	0.050	-	-	-	-	-	-	-	-	-
3. Testing	-	-	4.300	-	-	0.030	-	-	-	-	-	-	-	-	-	-	-	-
4. System Fielding Support	-	-	1.936	-	-	0.257	-	-	0.626	-	-	0.588	-	-	0.029	-	-	0.617
5. System Assessment	-	-	1.205	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6. Logistic Support	-	-	29.334	-	-	0.662	-	-	0.700	-	-	0.668	-	-	0.032	-	-	0.700
7. Data	-	-	4.495	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8. Program Management Support	-	-	23.091	-	-	1.009	-	-	0.367	-	-	0.572	-	-	0.028	-	-	0.600
9,000 BTU/H ECU ^(†)	7.869	428	3.368	6.462	156	1.008	7.674	135	1.036	6.566	129	0.847	6.500	6	0.039	6.563	135	0.886
18,000 BTU/H ECU (208V 3PH/50/60Hz) ^(†)	8.737	490	4.281	8.118	389	3.158	5.844	333	1.946	7.780	322	2.505	7.786	14	0.109	7.780	336	2.614
18,000 BTU/H ECU (230V 1PH/50/60Hz) ^(†)	8.762	256	2.243	7.761	109	0.846	8.229	105	0.864	7.966	89	0.709	8.000	4	0.032	7.968	93	0.741
36,000 BTU/H ECU ^(†)	11.148	305	3.400	9.840	125	1.230	13.740	73	1.003	10.304	102	1.051	10.500	4	0.042	10.311	106	1.093

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 25	P-1 Line Item Number / Title: 0100MF9000 / Heaters and ECU's	Item Number / Title [DODIC]: MF9303 / IMPROVED ENVIRONMENTAL CONTROL UNITS
ID Code (A=Service Ready, B=Not Service Ready) :		MDAP/MAIS Code:

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
60,000 BTU/H IECU (Full Rate)	8.314	3,628	30.164	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Recurring Cost</i>	-	-	135.657	-	-	10.122	-	-	7.344	-	-	8.200	-	-	0.370	-	-	8.570
<i>Subtotal: Flyaway Cost</i>	-	-	135.657	-	-	10.122	-	-	7.344	-	-	8.200	-	-	0.370	-	-	8.570
Gross/Weapon System Cost	112.484	1,206	135.656	11.038	917	10.122	11.903	617	7.344	10.263	799	8.200	13.214	28	0.370	10.363	827	8.570

Remarks:
FY21 Base P-5 quantities of 642 are correct. P-40 shows incorrect quantities of 799.

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	
Army	Quantity		373	282	501	28	529
	Total Obligation Authority		7.425	5.709	6.746	0.370	7.116
ANG	Quantity		364	208	207	-	207
	Total Obligation Authority		1.799	1.014	1.009	-	1.009
AR	Quantity		180	127	91	-	91
	Total Obligation Authority		0.898	0.621	0.445	-	0.445
Total: Secondary Distribution	Quantity		917	617	799	28	827
	Total Obligation Authority		10.122	7.344	8.200	0.370	8.570

(t) indicates the presence of a P-5a

UNCLASSIFIED

Exhibit P-5a, Procurement History and Planning: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 25	P-1 Line Item Number / Title: 0100MF9000 / Heaters and ECU's	Item Number / Title [DODIC]: MF9303 / IMPROVED ENVIRONMENTAL CONTROL UNITS
----------------------------------------------------------------------------------	------------------------------------------------------------------------	--------------------------------------------------------------------------------------

Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty <i>(Each)</i>	Unit Cost <i>(\$ K)</i>	Specs Avail Now?	Date Revision Available	RFP Issue Date
9,000 BTU/H ECU		2019	TFAB Defense / Madison, AL	C / FFP	ACC-APG Natick, MA	Apr 2020	Dec 2020	156	6.462	Y	Dec 2016	Mar 2017
9,000 BTU/H ECU		2020	TFAB Defense / Madison, AL	C / FFP	ACC-APG Natick, MA	Feb 2020	Dec 2020	135	7.674	Y	Dec 2016	Mar 2017
9,000 BTU/H ECU		2021	TFAB Defense / Madison, AL	C / FFP	ACC-APG Natick, MA	Feb 2021	Dec 2021	129	6.566	Y	Dec 2016	Mar 2017
9,000 BTU/H ECU	✓	2021	TFAB Defense / Madison, AL	C / FFP	ACC-APG Natick, MA	Feb 2021	Dec 2021	6	6.500	N	Dec 2016	Mar 2017
18,000 BTU/H ECU (208V 3PH/50/60Hz)		2019	TFAB Defense / Madison, AL	C / FFP	ACC-APG Natick, MA	Apr 2020	Dec 2020	389	8.118	Y	Dec 2016	Mar 2017
18,000 BTU/H ECU (208V 3PH/50/60Hz)		2020	TFAB Defense / Madison, AL	C / FFP	ACC-APG Natick, MA	Feb 2020	Dec 2020	333	5.844	Y	Dec 2016	Mar 2017
18,000 BTU/H ECU (208V 3PH/50/60Hz)		2021	TFAB Defense / Madison, AL	C / FFP	ACC-APG Natick, MA	Feb 2021	Dec 2021	322	7.780	Y	Dec 2016	Mar 2017
18,000 BTU/H ECU (208V 3PH/50/60Hz)	✓	2021	TFAB Defense / Madison, AL	C / FFP	ACC-APG Natick, MA	Feb 2021	Dec 2021	14	7.786	Y	Dec 2016	Mar 2017
18,000 BTU/H ECU (230V 1PH/50/60Hz)		2019	TFAB Defense / Madison, AL	C / FFP	ACC-APG Natick, MA	Apr 2020	Dec 2020	109	7.761	Y	Feb 2019	Mar 2017
18,000 BTU/H ECU (230V 1PH/50/60Hz)		2020	TFAB Defense / Madison, AL	C / FFP	ACC-APG Natick, MA	Feb 2020	Dec 2020	105	8.229	Y	Feb 2019	Mar 2017
18,000 BTU/H ECU (230V 1PH/50/60Hz)		2021	TFAB Defense / Madison, AL	C / FFP	ACC-APG Natick, MA	Feb 2021	Dec 2021	89	7.966	Y	Dec 2016	Mar 2017
18,000 BTU/H ECU (230V 1PH/50/60Hz)	✓	2021	TFAB Defense / Madison, AL	C / FFP	ACC-APG Natick, MA	Feb 2021	Dec 2021	4	8.000	Y	Dec 2016	Mar 2017
36,000 BTU/H ECU		2019	TFAB Defense / Madison, AL	C / FFP	ACC-APG Natick, MA	Apr 2020	Dec 2020	125	9.840	Y	Dec 2016	Mar 2017
36,000 BTU/H ECU		2020	TFAB Defense / Madison, AL	C / FFP	ACC-APG Natick, MA	Feb 2020	Dec 2020	73	13.740	Y	Dec 2016	Mar 2017
36,000 BTU/H ECU		2021	TFAB Defense / Madison, AL	C / FFP	ACC-APG Natick, MA	Feb 2021	Dec 2021	102	10.304	Y	Dec 2016	Mar 2017
36,000 BTU/H ECU	✓	2021	TFAB Defense / Madison, AL	C / FFP	ACC-APG Natick, MA	Feb 2021	Dec 2021	4	10.500	Y	Dec 2016	Mar 2017

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 25: Combat Service Support Equipment	P-1 Line Item Number / Title: 8796MA6800 / Soldier Enhancement
--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	--------------------------------------------------------------------------

ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
----------------------------------------------------------	-----------------------------------------------	--------------------------------------------

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	262.465	1.103	-	-	-	-	-	-	-	-	-	263.568
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	262.465	1.103	-	-	-	-	-	-	-	-	-	263.568
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	262.465	1.103	-	-	-	-	-	-	-	-	-	263.568

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The Soldier Enhancement Program (SEP) was established by the Fiscal Year 1990 National Defense Authorization Act. The purpose of the SEP is to provide an impetus for increasing the combat effectiveness of our Army Infantryman/Soldiers through the procurement of Commercial Off the Shelf (COTS), Government Off the Shelf (GOTS) or Non-Developmental Item (NDI) of lighter, more lethal weapons and improved equipment, including lighter, more comfortable loadbearing equipment, field gear, survivability items, communications equipment, navigational aids and training capabilities for Soldier evaluation. The SEP evaluates available COTS, GOTS or NDI equipment to determine if items have the potential to provide increased combat effectiveness to the Soldier. The SEP OPA3 funding provides a means of procuring individual equipment designed to increase the Soldiers' operational effectiveness for evaluation.

Secondary Distribution	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
Army	Quantity	-	-	-	-	-	-	-	-
	Total Obligation Authority	1.103	-	-	-	-	-	-	-
Total: Secondary Distribution	Quantity	-	-	-	-	-	-	-	-
	Total Obligation Authority	1.103	-	-	-	-	-	-	-

Justification:

No FY2021 funding requested.

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 25: Combat Service Support Equipment	P-1 Line Item Number / Title: 8822G01101 / Personnel Recovery Support System (PRSS)
--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-----------------------------------------------------------------------------------------------

ID Code (A=Service Ready, B=Not Service Ready):	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
--------------------------------------------------------	-----------------------------------------------	--------------------------------------------

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	11,237	8,055	7,123	-	-	-	-	-	-	-	Continuing	Continuing
Gross/Weapon System Cost (<i>\$ in Millions</i>)	92.915	10.175	9.382	4.625	3.721	8.346	4.593	4.599	5.373	6.668	Continuing	Continuing
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	92.915	10.175	9.382	4.625	3.721	8.346	4.593	4.599	5.373	6.668	Continuing	Continuing
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	92.915	10.175	9.382	4.625	3.721	8.346	4.593	4.599	5.373	6.668	Continuing	Continuing

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Thousands</i>)	8.269	1.263	1.317	-	-	-	-	-	-	-	Continuing	Continuing

Description:

The Personnel Recovery Support System (PRSS) consists of items including PRSS 1b Secure Personnel Recovery Device (PRD) and other Personnel Recovery equipment items to report and locate isolated, missing, detained and captured Soldiers.

Changes in the authority to operate the PRD prompted selection of an alternative secure satellite communications architecture in FY19, requiring Engineering Change Proposals (ECPs) to both the PRD and its associated support equipment to allow the system to operate as intended against peer and near peer threats. These ECPs do not require an Independent Operational Test and Evaluation. FY19 and FY20 funds, originally planned for PRD procurement, were used to accomplish the required ECPs, procurement of required support equipment, and associated first article testing prior to full rate production. Procurement of the modified PRD devices is expected in FY21

Secondary Distribution	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
Army	Quantity	8,055	7,123	-	-	-	-	-	-
	Total Obligation Authority	10.175	9.382	4.625	3.721	8.346	4.593	4.599	5.373
Total: Secondary Distribution	Quantity	8,055	7,123	-	-	-	-	-	-
	Total Obligation Authority	10.175	9.382	4.625	3.721	8.346	4.593	4.599	5.373

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity:
 2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 25:
 Combat Service Support Equipment **P-1 Line Item Number / Title:**
 8822G01101 / Personnel Recovery Support System (PRSS)

ID Code (A=Service Ready, B=Not Service Ready): **Program Elements for Code B Items:** N/A **Other Related Program Elements:** N/A

Line Item MDAP/MAIS Code: N/A

Exhibits Schedule					Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-5	G01101 / Personnel Recovery Support System (PRSS)	P-5a			11,237 / 92.915	8,055 / 10.175	7,123 / 9.382	- / 4.625	- / 3.721	- / 8.346
P-40	Total Gross/Weapon System Cost				11,237 / 92.915	8,055 / 10.175	7,123 / 9.382	- / 4.625	- / 3.721	- / 8.346

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

Justification:
 FY 21 Base procurement dollars in the amount of \$4.630 million support procurement of Personnel Recovery Support System (PRSS) products that support the Army's capability to report and locate isolated, missing, detained and captured Soldiers. Funding procures equipment and materiel to support a balanced investment strategy for the Army's approved force structure.

 FY 21 OCO procurement dollars in the amount of \$3.721 million funds the purchase of PRSS 1b Secure PRDs and associated support services for use in overseas contingency operations by the active and reserve components of the Armed Forces.

 The Army Acquisition Objective (AAO) for the PRSS 1b Secure PRD is 50,790.

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 25		P-1 Line Item Number / Title: 8822G01101 / Personnel Recovery Support System (PRSS)
		Item Number / Title [DODIC]: G01101 / Personnel Recovery Support System (PRSS)

ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:
---------------------------------------------------------	------------------------

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Procurement Quantity (Units in Each)	11,237	8,055	7,123	-	-	-
Gross/Weapon System Cost (\$ in Millions)	92.915	10.175	9.382	4.625	3.721	8.346
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	92.915	10.175	9.382	4.625	3.721	8.346
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	92.915	10.175	9.382	4.625	3.721	8.346

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (\$ in Millions)	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Thousands)	8.269	1.263	1.317	-	-	-

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
Flyaway Cost																		
Recurring Cost																		
Personnel Recovery Equipment Items ^(†)	1.021	48,690	49.728	0.740	6,250	4.622	0.936	1,707	1.598	0.875	2,646	2.314	-	-	-	0.875	2,646	2.314
Secure Personal Locator Beacons ^(†)	-	-	-	-	-	-	0.838	5,000	4.188	-	-	-	0.852	3,287	2.802	0.852	3,287	2.802
Initial Spares & Repair Parts	-	-	3.270	-	-	-	-	-	0.014	-	-	-	-	-	0.014	-	-	0.014
Support Equipment	-	-	3.805	-	-	2.760	-	-	0.336	-	-	0.019	-	-	-	-	-	0.019
Systems Test and Evaluation	-	-	0.988	-	-	-	-	-	0.022	-	-	0.076	-	-	-	-	-	0.076
Nonrecurring Engineering	-	-	6.652	-	-	1.772	-	-	0.338	-	-	0.250	-	-	-	-	-	0.250
Systems Integration and Engineering	-	-	6.550	-	-	0.290	-	-	0.678	-	-	0.165	-	-	-	-	-	0.165
Project Management Admin	-	-	5.374	-	-	0.185	-	-	0.332	-	-	0.370	-	-	-	-	-	0.370
Fielding & Training	-	-	2.127	-	-	0.433	-	-	0.601	-	-	0.314	-	-	0.070	-	-	0.384
Contract Logistics/ Subject Expert Spt	-	-	14.285	-	-	0.110	-	-	1.273	-	-	1.116	-	-	0.836	-	-	1.952
Subtotal: Recurring Cost	-	-	92.779	-	-	10.172	-	-	9.380	-	-	4.624	-	-	3.722	-	-	8.346
Non Recurring Cost																		

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 25	P-1 Line Item Number / Title: 8822G01101 / Personnel Recovery Support System (PRSS)	Item Number / Title [DODIC]: G01101 / Personnel Recovery Support System (PRSS)
ID Code (A=Service Ready, B=Not Service Ready) :		MDAP/MAIS Code:

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
FY2018 NDAA SEC 825 MDAP Cost Overrun	-	-	0.152	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Non Recurring Cost</i>	-	-	0.152	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Flyaway Cost</i>	-	-	92.931	-	-	10.172	-	-	9.380	-	-	4.624	-	-	3.722	-	-	8.346
Gross/Weapon System Cost	8.269	11,237	92.915	1.263	8,055	10.175	1.317	7,123	9.382	-	-	4.625	-	-	3.721	-	-	8.346

Remarks:

Changes in the authority to operate the PRD prompted selection of an alternative secure satellite communications architecture in FY19, requiring Engineering Change Proposals (ECP) to both the PRD and its associated support equipment to allow the system to operate as intended against near and near peer threats. These ECPs do not require an Independent Operational Test and Evaluation. FY19 and FY20 funds, originally planned for PRD procurement, were used to accomplish the required ECPs, procurement of required support equipment, and associated first article testing prior to full rate production. Procurement of the modified PRD devices is expected in FY21.

Prior Years includes FY 2018 NDAA SEC 825 MDAP Cost Overrun pending rescission.

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Army	Quantity	8,055	7,123	-	-	-
	Total Obligation Authority	10.175	9.382	4.625	3.721	8.346
Total:	Quantity	8,055	7,123	-	-	-
Secondary Distribution	Total Obligation Authority	10.175	9.382	4.625	3.721	8.346

(t) indicates the presence of a P-5a

UNCLASSIFIED

Exhibit P-5a, Procurement History and Planning: PB 2021 Army								Date: February 2020				
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 25			P-1 Line Item Number / Title: 8822G01101 / Personnel Recovery Support System (PRSS)					Item Number / Title [DODIC]: G01101 / Personnel Recovery Support System (PRSS)				
Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty (Each)	Unit Cost (\$ K)	Specs Avail Now?	Date Revision Available	RFP Issue Date
Personnel Recovery Equipment Items		2019	Various Contractors / Various Locations	C / FP	Aberdeen, MD	Jan 2019	Apr 2019	6,250	0.740	Y		
Personnel Recovery Equipment Items		2020	Various Contractors / Various Locations	Option / FP	Aberdeen, MD / Redstone Arsenal, AL	Jan 2020	Apr 2020	1,707	0.936	Y		
Personnel Recovery Equipment Items		2021	Various Contractors / Various Locations	Option / FP	Aberdeen, MD / Redstone Arsenal, AL	Jan 2021	Apr 2021	2,646	0.875	Y		
Secure Personal Locator Beacons	✓	2021	Orolia USA, Inc. / Rochester, NY	C / IDIQ	Aberdeen, MD	Dec 2020	May 2021	0	0.000	N		

Remarks:
FY2021 Secure Personal Locator Beacon (OCO) quantity is 2,802 and unit cost is \$0.852M.

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 25: Combat Service Support Equipment	P-1 Line Item Number / Title: 8825R80501 / Ground Soldier System
--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	----------------------------------------------------------------------------

ID Code (A=Service Ready, B=Not Service Ready):	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
--------------------------------------------------------	-----------------------------------------------	--------------------------------------------

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	3,159	4,126	-	6,448	-	6,448	7,824	7,893	8,582	8,298	Continuing	Continuing
Gross/Weapon System Cost (<i>\$ in Millions</i>)	504.039	36.506	116.265	154.937	-	154.937	182.025	185.295	188.627	190.514	Continuing	Continuing
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	504.039	36.506	116.265	154.937	-	154.937	182.025	185.295	188.627	190.514	Continuing	Continuing
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	504.039	36.506	116.265	154.937	-	154.937	182.025	185.295	188.627	190.514	Continuing	Continuing

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Thousands</i>)	159.557	8.848	-	24.029	-	24.029	23.265	23.476	21.979	22.959	Continuing	Continuing

Description:

The Nett Warrior (NW) funding line supports the Army's Network Modernization Strategy Line of Effort (LOE) #1, Unified Network. FY2021 base procurement funding procures NW commercial End User Devices and supporting equipment to provide the dismounted leader integrated mission command and situational awareness during combat operations. The NW system provides operators real-time information on friendly positions, information about enemy activity and movement, navigational data and map imagery, and other mission related graphics. Nett Warrior applies feedback from conventional and Special Operations units to procure and implement SECRET as well as Secure but Unclassified (SBU) networking equipment for integration Tactical Network Brigades to enable faster, more flexible Mission Command data exchanges with Joint and Coalition forces while maintaining the existing integrated mission command capability with Joint Battle Command-Platform systems. NW uses Commercial-Off-The-Shelf (COTS) and Non-Developmental (NDI) communications equipment to create a robust and flexible SBU Integrated Tactical Network that enables faster and more accurate decision making during combat operations at the tactical level. NW also procures supporting power systems to reduce power requirements in the expeditionary environment. NW provides the dismounted common computational platform for the Mobile Handheld Computing Environment and includes integration and interface of products on Soldiers. Ground Soldier Systems in known as Nett Warrior, named in honor of Medal of Honor recipient, COL Robert C. Nett.

FY20 procurement quantities annotated as zero should total 9,611 in accordance with the approved PB20 submission.

FY21 6,448 quantity is scheduled to be fielded to COMPO 1 units only in accordance with the Network CFT fielding strategy.

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
Army	Quantity	4,126	-	4,959	-	4,959	6,178	6,260	6,820	6,615
	Total Obligation Authority	36.506	116.265	136.389	-	136.389	161.521	164.953	166.678	169.549
ANG	Quantity	-	-	1,489	-	1,489	1,646	1,633	1,762	1,683
	Total Obligation Authority	-	-	18.548	-	18.548	20.504	20.342	21.949	20.965
Total: Secondary Distribution	Quantity	4,126	-	6,448	-	6,448	7,824	7,893	8,582	8,298
	Total Obligation Authority	36.506	116.265	154.937	-	154.937	182.025	185.295	188.627	190.514

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 25: Combat Service Support Equipment	P-1 Line Item Number / Title: 8825R80501 / Ground Soldier System
--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	----------------------------------------------------------------------------

ID Code (A=Service Ready, B=Not Service Ready):	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
--------------------------------------------------------	-----------------------------------------------	--------------------------------------------

Line Item MDAP/MAIS Code: N/A

Exhibits Schedule					Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	Quantity / Total Cost <i>(Each) / (\$ M)</i>	Quantity / Total Cost <i>(Each) / (\$ M)</i>	Quantity / Total Cost <i>(Each) / (\$ M)</i>	Quantity / Total Cost <i>(Each) / (\$ M)</i>	Quantity / Total Cost <i>(Each) / (\$ M)</i>	Quantity / Total Cost <i>(Each) / (\$ M)</i>
P-5	R80501 / Ground Soldier System	P-5a			3,159 / 504.039	4,126 / 36.506	- / 116.265	6,448 / 154.937	- / -	6,448 / 154.937
P-40	Total Gross/Weapon System Cost				3,159 / 504.039	4,126 / 36.506	- / 116.265	6,448 / 154.937	- / -	6,448 / 154.937

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

Justification:
 FY2021 base procurement funding in the amount of \$155.1M procures NW Soldier-worn hardware, NW support equipment, NW vehicle integration kits and Integrated Tactical Network (ITN) Secure But Unclassified (SBU) network communications equipment, New Equipment Training (NET) and support services for fielding to 5 Brigade Combat Teams in FY2022. Provides support services to Special Operations and Ranger units. NW-equipped units directly enhance the Army's combat overmatch capability in two Army mission essential tasks: 1) enhances small unit combat fighting capabilities by providing improved situational awareness and mission command to dismounted combat leaders through an integrated smart device and supporting equipment and 2) enables commanders to combine elements of combat power (mission command, movement and maneuver, leadership, intelligence, fires, information, sustainment and protection) to engage the enemy and swiftly end tactical engagements and reduce possible fratricide. NW brings the dismounted tactical combat leaders into the Army's ITN through the SBU network systems and feeds tactically relevant data into the higher classified Army and Joint Coalition networks. Ongoing evaluations of the ITN will validate effectiveness and scalability for I/S/A BCTs. When major performance improvements in commercial smartphones enable either significant improvements in NW capabilities or reduction in Size, Weight and Power (SWAP), the program will initiate procurement-funded technology refreshment in accordance with AR 70-1 and DoD FMR.

The PM, due to the commercial nature of the Nett Warrior system hardware (e.g. smart phones, smart phone cases, screen protectors, memory cards and other associated accessories) and to address diminishing manufacturing (obsolescence parts), on an as needed basis will consolidate the purchase of NW commercial-based items across multiple years to execute a buyout of devices / components for up to two years beyond FY21 as needed.

"In accordance with Section 1815 of the FY 2008 National Defense Authorization Act (P.L. 110-181), this item is necessary for use by the active and reserve components of the Armed Forces for homeland defense missions, domestic emergency responses, and providing military support to civil authorities."

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 25	P-1 Line Item Number / Title: 8825R80501 / Ground Soldier System	Item Number / Title [DODIC]: R80501 / Ground Soldier System

ID Code (A=Service Ready, B=Not Service Ready) :				MDAP/MAIS Code:			
Resource Summary		Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Procurement Quantity (Units in Each)		3,159	4,126	-	6,448	-	6,448
Gross/Weapon System Cost (\$ in Millions)		504.039	36.506	116.265	154.937	-	154.937
Less PY Advance Procurement (\$ in Millions)		-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)		504.039	36.506	116.265	154.937	-	154.937
Plus CY Advance Procurement (\$ in Millions)		-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)		504.039	36.506	116.265	154.937	-	154.937
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>							
Initial Spares (\$ in Millions)		-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Thousands)		159.557	8.848	-	24.029	-	24.029

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
Hardware Cost																		
Recurring Cost																		
NW Soldier Worn Hardware (COMPO 1) ^(t)	3.340	28,151	94.033	0.480	4,126	1.979	0.996	9,611	9.568	1.573	6,448	10.142	-	-	-	1.573	6,448	10.142
Vehicle Integration Kits (COMPO 1)	-	-	166.068	-	-	2.216	-	-	2.130	-	-	8.519	-	-	-	-	-	8.519
Network Support Equipment (COMPO 1)	-	-	132.738	-	-	1.590	-	-	3.607	-	-	27.074	-	-	-	-	-	27.074
Battery and Recharging (COMPO 1)	-	-	41.573	-	-	6.369	-	-	16.058	-	-	30.357	-	-	-	-	-	30.357
Voice Data Gateway (COMPO 1)	-	-	1.712	-	-	0.294	-	-	0.954	-	-	1.655	-	-	-	-	-	1.655
Echelon TOC Boxes (COMPO 1)	-	-	20.089	-	-	10.270	-	-	31.790	-	-	10.054	-	-	-	-	-	10.054
Network Extenders (COMPO 1)	-	-	-	-	-	5.139	-	-	11.048	-	-	25.380	-	-	-	-	-	25.380
System Fielding, Initial Spares and Support (COMPO 1)	-	-	39.094	-	-	8.649	-	-	31.105	-	-	41.754	-	-	-	-	-	41.754
NW Soldier Worn Hardware (COMPO 2)	1.852	223	0.413	-	-	-	-	-	0.875	-	-	-	-	-	-	-	-	-
Vehicle Integration Kits (COMPO 2)	-	-	1.712	-	-	-	-	-	0.195	-	-	-	-	-	-	-	-	-

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 25	P-1 Line Item Number / Title: 8825R80501 / Ground Soldier System	Item Number / Title [DODIC]: R80501 / Ground Soldier System
ID Code (A=Service Ready, B=Not Service Ready) :		MDAP/MAIS Code:

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
Network Support Equipment (COMPO 2)	-	-	1.272	-	-	-	-	-	0.330	-	-	-	-	-	-	-	-	-
Battery and Recharging (COMPO 2)	-	-	1.557	-	-	-	-	-	1.470	-	-	-	-	-	-	-	-	-
Voice Data Gateway (COMPO 2)	-	-	0.129	-	-	-	-	-	0.087	-	-	-	-	-	-	-	-	-
Echelon TOC Boxes (COMPO 2)	-	-	1.512	-	-	-	-	-	2.911	-	-	-	-	-	-	-	-	-
Network Extenders (COMPO 2)	-	-	-	-	-	-	-	-	1.012	-	-	-	-	-	-	-	-	-
System Fielding, Initial Spares and Support (COMPO 2)	-	-	2.146	-	-	-	-	-	3.120	-	-	-	-	-	-	-	-	-
<i>Subtotal: Recurring Cost</i>	-	-	<i>504.048</i>	-	-	<i>36.506</i>	-	-	<i>116.260</i>	-	-	<i>154.935</i>	-	-	-	-	-	<i>154.935</i>
<i>Subtotal: Hardware Cost</i>	-	-	<i>504.048</i>	-	-	<i>36.506</i>	-	-	<i>116.260</i>	-	-	<i>154.935</i>	-	-	-	-	-	<i>154.935</i>
Gross/Weapon System Cost	159.557	3,159	504.039	8.848	4,126	36.506	-	-	116.265	24.029	6,448	154.937	-	-	-	24.029	6,448	154.937

Remarks:

FY20 procurement quantities annotated as zero should total 9,611 in accordance with approved PB20 submission.

FY21 6,448 quantity is scheduled to be fielded to COMPO 1 units only in accordance with the Network CFT fielding strategy.

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Army	Quantity	4,126	-	4,959	-	4,959
	Total Obligation Authority	36.506	116.265	136.389	-	136.389
ANG	Quantity	-	-	1,489	-	1,489
	Total Obligation Authority	-	-	18.548	-	18.548
Total: Secondary Distribution	Quantity	4,126	-	6,448	-	6,448
	Total Obligation Authority	36.506	116.265	154.937	-	154.937

(t) indicates the presence of a P-5a

UNCLASSIFIED

Exhibit P-5a, Procurement History and Planning: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 25	P-1 Line Item Number / Title: 8825R80501 / Ground Soldier System	Item Number / Title [DODIC]: R80501 / Ground Soldier System
----------------------------------------------------------------------------------	----------------------------------------------------------------------------	-----------------------------------------------------------------------

Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty <i>(Each)</i>	Unit Cost <i>(\$ K)</i>	Specs Avail Now?	Date Revision Available	RFP Issue Date
NW Soldier Worn Hardware (COMPO 1)		2018	TBD / APG, MD	C / FFP	APG, MD	Mar 2018	Jun 2018	2,967	1.850	N		
NW Soldier Worn Hardware (COMPO 1)		2019	TBD / APG, MD	C / FFP	APG-MD	Mar 2019	Aug 2019	4,126	0.480	N		
NW Soldier Worn Hardware (COMPO 1)		2020	TBD / APG, MD	C / FFP	APG-MD	Mar 2020	Aug 2020	9,611	0.996	N		
NW Soldier Worn Hardware (COMPO 1)		2021	TBD / APG, MD	C / FFP	APG-MD	Mar 2021	Aug 2021	6,448	1.573	N		

Remarks:

The NW program focuses on the integration and evaluation of commercial off the shelf (COTS) smart devices for the MC/SA system. P21 form is not provided, as program procures commercial off the shelf (COTS) products.

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 25: Combat Service Support Equipment	P-1 Line Item Number / Title: 8827R80800 / Mobile Soldier Power
--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	---------------------------------------------------------------------------

ID Code (A=Service Ready, B=Not Service Ready):	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
--------------------------------------------------------	-----------------------------------------------	--------------------------------------------

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	5,325	26,190	14,898	16,130	-	16,130	-	-	-	-	-	62,543
Gross/Weapon System Cost (<i>\$ in Millions</i>)	6.392	30.774	29.364	34.297	-	34.297	-	-	-	-	-	100.827
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	6.392	30.774	29.364	34.297	-	34.297	-	-	-	-	-	100.827
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	6.392	30.774	29.364	34.297	-	34.297	-	-	-	-	-	100.827

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Thousands</i>)	1.200	1.175	1.971	2.126	-	2.126	-	-	-	-	-	1.612

Description:

These improved renewable systems enable dismounted Soldiers to execute their missions with fewer battery resupplies, thus reducing the logistical burden associated with moving fuel and primary (disposable) batteries. The UBC capability also allows dismounted Soldiers to operate independently for longer missions without being tethered to a large generator, vehicle, or supply train in the most austere operating environments.

The Integrated Soldier Power and Data System-Core (ISPDS-C), Conformal Wearable Battery (CWB), and Squad Power Manager (SPM) fill the power and energy gaps created by the increase in mission essential, Soldier portable power consumers, such as situational awareness displays, GPS systems, weapon sensors, radios, and other devices. Specific systems of Soldier Power Integrated (SPI) are the ISPDS-C, the CWB and the SPM. These power solutions include, but are not limited to, individual Soldier worn systems, integrated power management, and renewable energy. This effort is consistent with the Soldier Protection Capability Development Document (CDD) (March 2011), Operational Energy Initial Capabilities Document (26 April 2012), the Sep 2013 Small Unit Power CDD (26 September 2013), and the SPM, ISPDS-C with Conformal Central Power Source (CCPS) Capability Production Document (May 2017).

The Universal Battery Charger (UBC) fills the power and energy gap created by the increase in mission essential, Soldier portable power consumers, by providing a sole charging solution capable of providing power to handheld communication devices and a suite of military batteries. The UBC charging solution is suited for the platoon and intended for use in the most austere operating environments. This effort is consistent with the Operational Energy ICD (26 April 2012) and the Universal Battery Charger CPD (27 May 2015). MSC FRP occurred August 2017.

The Small Unit Power (SUP) Platoon Power Generation (PPG) will provide small units with no less than 900 Watts of portable power to sustain Modified Table of Organizational Equipment (MTOE) unit power demand in support of 48 to 72 hour missions using a common logistical fuel (JP-8). It will be used for charging batteries and powering various types of Army communications and electronics devices. PPG will provide sufficient power to recharge and power all Platoon equipment (i.e. batteries, communicators and electronics) and fulfill residual power gaps at the Squad and Soldier level. PPG will provide power to all Brigade Combat Teams (Stryker, Armor and Infantry), Rangers and Special Forces in austere environments. PPG will reduce dependency on disposable batteries and reduce need for operational energy resupply for long duration missions. Army Acquisition Objective (AAO): 4,131. This effort is consistent with Capabilities Development Document for Small Unit Power (SUP) Increment 1 (September 2013).

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
Army	Quantity	26,190	7,808	16,130	-	16,130	-	-	-	-
	Total Obligation Authority	30.774	20.189	34.297	-	34.297	-	-	-	-

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 25: Combat Service Support Equipment	P-1 Line Item Number / Title: 8827R80800 / Mobile Soldier Power
--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	---------------------------------------------------------------------------

ID Code (A=Service Ready, B=Not Service Ready):	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
--------------------------------------------------------	-----------------------------------------------	--------------------------------------------

Line Item MDAP/MAIS Code: N/A

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
ANG	Quantity	-	7,090	-	-	-	-	-	-	-
	Total Obligation Authority	-	9.175	-	-	-	-	-	-	-
Total: Secondary Distribution	Quantity	26,190	14,898	16,130	-	16,130	-	-	-	-
	Total Obligation Authority	30.774	29.364	34.297	-	34.297	-	-	-	-

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity:
2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 25: Combat Service Support Equipment

P-1 Line Item Number / Title:
8827R80800 / Mobile Soldier Power

ID Code (A=Service Ready, B=Not Service Ready): **Program Elements for Code B Items:** N/A **Other Related Program Elements:** N/A

Line Item MDAP/MAIS Code: N/A

Exhibits Schedule					Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-5	R07091 / Platoon Power Generator	P-5a			- / -	- / -	252 / 4.004	408 / 6.413	- / -	408 / 6.413
P-5	R08090 / Integrated Soldier Power Data System - Core	P-5a			4,924 / 4.506	24,391 / 22.318	13,518 / 17.495	13,711 / 17.818	- / -	13,711 / 17.818
P-5	R09103 / Universal Battery Charger	P-5a			401 / 1.886	1,799 / 8.456	1,128 / 7.865	2,011 / 10.066	- / -	2,011 / 10.066
P-40	Total Gross/Weapon System Cost				5,325 / 6.392	26,190 / 30.774	14,898 / 29.364	16,130 / 34.297	- / -	16,130 / 34.297

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

Justification:

FY2021 base procurement dollars in the amount of \$34.297 million procures and fields integrated power and data managing products and battery chargers along with associated equipment in support of IBCTs, SBCTs, ABCTs, SFABs and Integrated Tactical Network Fielding's. Funds support Platoon Power Generators production and fielding to all BCTs (A/S/I), Ranger and Special Forces units.

Soldiers face an ever-growing power demand that requires a comprehensive power generation, storage, and charging architecture. The gap between current power available and future power demand widens with the introduction of additional integrated digital electronic capabilities. Additional batteries add weight and consume more space in the combat load. Mobile Soldier products meet the demand for increased power, while taking advantage of emerging COTs and GOTs solutions. These solutions reduce the cognitive and logistical burden on the soldier to facilitate 72 hours of mission duration before resupply. Mobile Soldier products meet the demand for charging in bulk to rapidly and efficiently execute resupply operations; increasing mission duration, reducing the logistical burden, and decreasing risk to the Soldier.

"In accordance with Section 1815 of the FY 2008 National Defense Authorization Act (P.L. 110-181), this item is necessary for use by the active and reserve components of the Armed Forces for homeland defense missions, domestic emergency responses, and providing military support to civil authorities."

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 25		P-1 Line Item Number / Title: 8827R80800 / Mobile Soldier Power
		Item Number / Title [DODIC]: R07091 / Platoon Power Generator

ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:
---------------------------------------------------------	------------------------

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Procurement Quantity (Units in Each)	-	-	252	408	-	408
Gross/Weapon System Cost (\$ in Millions)	-	-	4.004	6.413	-	6.413
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	-	-	4.004	6.413	-	6.413
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	-	-	4.004	6.413	-	6.413

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (\$ in Millions)	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Thousands)	-	-	15.889	15.718	-	15.718

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
Flyaway Cost																		
Recurring Cost																		
PPG ^(†)	-	-	-	-	-	-	9.214	252	2.322	9.390	408	3.831	-	-	-	9.390	408	3.831
1. Engineering Support	-	-	-	-	-	-	-	-	0.380	-	-	0.388	-	-	-	-	-	0.388
2. Endengineering Change Orders	-	-	-	-	-	-	-	-	0.175	-	-	0.198	-	-	-	-	-	0.198
3. Testing	-	-	-	-	-	-	-	-	0.325	-	-	0.294	-	-	-	-	-	0.294
4. System Fielding Support	-	-	-	-	-	-	-	-	0.035	-	-	0.812	-	-	-	-	-	0.812
System Assessments	-	-	-	-	-	-	-	-	-	-	-	0.103	-	-	-	-	-	0.103
6. Logistics Support	-	-	-	-	-	-	-	-	0.352	-	-	0.361	-	-	-	-	-	0.361
7. Data	-	-	-	-	-	-	-	-	0.045	-	-	0.047	-	-	-	-	-	0.047
8. PM Management Support	-	-	-	-	-	-	-	-	0.370	-	-	0.379	-	-	-	-	-	0.379
<i>Subtotal: Recurring Cost</i>	-	-	-	-	-	-	-	-	4.004	-	-	6.413	-	-	-	-	-	6.413
<i>Subtotal: Flyaway Cost</i>	-	-	-	-	-	-	-	-	4.004	-	-	6.413	-	-	-	-	-	6.413
Gross/Weapon System Cost	-	-	-	-	-	-	15.889	252	4.004	15.718	408	6.413	-	-	-	15.718	408	6.413

Secondary Distribution	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Army	-	252	408	-	408

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 25	P-1 Line Item Number / Title: 8827R80800 / Mobile Soldier Power	Item Number / Title [DODIC]: R07091 / Platoon Power Generator
----------------------------------------------------------------------------------	---------------------------------------------------------------------------	-------------------------------------------------------------------------

ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:
---------------------------------------------------------	------------------------

	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Secondary Distribution					
Total Obligation Authority	-	4.004	6.413	-	6.413
Total:					
Secondary Distribution					
Quantity	-	252	408	-	408
Total Obligation Authority	-	4.004	6.413	-	6.413

(t) indicates the presence of a P-5a

UNCLASSIFIED

Exhibit P-5a, Procurement History and Planning: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 25	P-1 Line Item Number / Title: 8827R80800 / Mobile Soldier Power	Item Number / Title [DODIC]: R07091 / Platoon Power Generator
----------------------------------------------------------------------------------	---------------------------------------------------------------------------	-------------------------------------------------------------------------

Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty <i>(Each)</i>	Unit Cost <i>(\$ K)</i>	Specs Avail Now?	Date Revision Available	RFP Issue Date
PPG		2020	TBD / TBD	C / TBD	Picatinny	Jun 2020	Mar 2021	252	9.214	N		
PPG		2021	TBD / TBD	C / TBD	Picatinny	Mar 2021	Sep 2021	408	9.390	N		

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 25	P-1 Line Item Number / Title: 8827R80800 / Mobile Soldier Power	Item Number / Title [DODIC]: R08090 / Integrated Soldier Power Data System - Core

ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:
---------------------------------------------------------	------------------------

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Procurement Quantity (Units in Each)	4,924	24,391	13,518	13,711	-	13,711
Gross/Weapon System Cost (\$ in Millions)	4.506	22.318	17.495	17.818	-	17.818
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	4.506	22.318	17.495	17.818	-	17.818
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	4.506	22.318	17.495	17.818	-	17.818

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (\$ in Millions)	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Thousands)	0.915	0.915	1.294	1.300	-	1.300

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
Flyaway Cost																		
Non Recurring Cost																		
Soldier Power Hardware ^(†)	1.044	2,916	3.043	0.787	24,391	19.190	1.172	13,516	15.834	1.169	13,711	16.028	-	-	-	1.169	13,711	16.028
Sys Eng/Program Management	-	-	1.340	-	-	1.963	-	-	1.086	-	-	1.496	-	-	-	-	-	1.496
System Fielding and Support	-	-	0.122	-	-	1.162	-	-	0.575	-	-	0.294	-	-	-	-	-	0.294
<i>Subtotal: Non Recurring Cost</i>	-	-	<i>4.505</i>	-	-	<i>22.315</i>	-	-	<i>17.495</i>	-	-	<i>17.818</i>	-	-	-	-	-	<i>17.818</i>
<i>Subtotal: Flyaway Cost</i>	-	-	<i>4.505</i>	-	-	<i>22.315</i>	-	-	<i>17.495</i>	-	-	<i>17.818</i>	-	-	-	-	-	<i>17.818</i>
Gross/Weapon System Cost	0.915	4,924	4.506	0.915	24,391	22.318	1.294	13,518	17.495	1.300	13,711	17.818	-	-	-	1.300	13,711	17.818

Remarks:

- Change in FY21 procurement quantities align with the Network Cross Functional Team (N-CFT) fielding requirements in FY 22.
- The differences in unit cost numbers are due to the following reasons:
 - The CWB cost was updated from \$610 to \$900 due to past procurement contract being underbid.
 - Basic hub updated cost of \$535 to \$600 to reflect recompeted price due to end of IDIQ contract.
 - Next Gen Hub updated estimate price from \$668 to \$2400 as a result of the IGCE document from the procurement package. This dollar amount is currently being reevaluated to drive the cost down.
 - SPM updated cost from \$5645 to \$9400 due the inclusion the cable bundle into the overall price of the capability and not just the central power management

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 25	P-1 Line Item Number / Title: 8827R80800 / Mobile Soldier Power	Item Number / Title [DODIC]: R08090 / Integrated Soldier Power Data System - Core

ID Code (A=Service Ready, B=Not Service Ready) : **MDAP/MAIS Code:**

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Army	Quantity	24,391	6,428	13,711	-	13,711
	Total Obligation Authority	22.318	8.320	17.818	-	17.818
ANG	Quantity	-	7,090	-	-	-
	Total Obligation Authority	-	9.175	-	-	-
Total: Secondary Distribution	Quantity	24,391	13,518	13,711	-	13,711
	Total Obligation Authority	22.318	17.495	17.818	-	17.818

(†) indicates the presence of a P-5a

UNCLASSIFIED

Exhibit P-5a, Procurement History and Planning: PB 2021 Army							Date: February 2020				
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 25			P-1 Line Item Number / Title: 8827R80800 / Mobile Soldier Power				Item Number / Title [DODIC]: R08090 / Integrated Soldier Power Data System - Core				

Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty <i>(Each)</i>	Unit Cost <i>(\$ K)</i>	Specs Avail Now?	Date Revision Available	RFP Issue Date
Soldier Power Hardware		2018	Secure Communications / Santa Ana, CA	MIPR	DLA	Oct 2017	Apr 2018	2,916	1.044	N		
Soldier Power Hardware		2019	Secure Communications / Santa Ana, CA	MIPR	ACC-APG	Dec 2018	Jun 2019	24,391	0.787	N		
Soldier Power Hardware		2020	Secure Communications / Santa Ana, CA	MIPR	ACC-APG	Dec 2019	Jun 2020	13,516	1.172	N		
Soldier Power Hardware		2021	Secure Communications / Santa Ana, CA	MIPR	ACC-APG	Dec 2020	Jun 2021	13,711	1.169	N		

Remarks:
P-21 not required. Program funding procures commercial off the shelf items for the Integrated Soldier Power Data System.

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 25	P-1 Line Item Number / Title: 8827R80800 / Mobile Soldier Power	Item Number / Title [DODIC]: R09103 / Universal Battery Charger

ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:
---------------------------------------------------------	------------------------

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Procurement Quantity (<i>Units in Each</i>)	401	1,799	1,128	2,011	-	2,011
Gross/Weapon System Cost (<i>\$ in Millions</i>)	1.886	8.456	7.865	10.066	-	10.066
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	1.886	8.456	7.865	10.066	-	10.066
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	1.886	8.456	7.865	10.066	-	10.066

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Thousands</i>)	4.703	4.700	6.973	5.005	-	5.005

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
Hardware Cost																		
Recurring Cost																		
Universal Battery Charger (UBC) Hardware ^(†)	5.415	234	1.267	0.560	1,799	1.008	5.121	1,128	5.776	3.011	2,011	6.055	-	-	-	3.011	2,011	6.055
UBC Fielding and Support	-	-	0.086	-	-	1.562	-	-	0.006	-	-	0.405	-	-	-	-	-	0.405
<i>Subtotal: Recurring Cost</i>	-	-	1.353	-	-	2.570	-	-	5.782	-	-	6.460	-	-	-	-	-	6.460
Non Recurring Cost																		
UBC Vehicle Integration	-	-	0.183	-	-	3.747	-	-	-	-	-	2.247	-	-	-	-	-	2.247
System Engineering/ Program Management	-	-	0.350	-	-	2.139	-	-	2.083	-	-	1.359	-	-	-	-	-	1.359
<i>Subtotal: Non Recurring Cost</i>	-	-	0.533	-	-	5.886	-	-	2.083	-	-	3.606	-	-	-	-	-	3.606
<i>Subtotal: Hardware Cost</i>	-	-	1.886	-	-	8.456	-	-	7.865	-	-	10.066	-	-	-	-	-	10.066
Gross/Weapon System Cost	4.703	401	1.886	4.700	1,799	8.456	6.973	1,128	7.865	5.005	2,011	10.066	-	-	-	5.005	2,011	10.066

Remarks:

Unit cost decrease due to the insertion of the UBC-Lite into the BOI. It is projected that UBC-Lite insertion will meet squad level charging requirement and move the UBC capability up to the platoon level. The UBC-Lite insertion results in a weight and size reduction for the Soldier. This results in an overall higher number of units procured, however, the majority of the units will be UBC-Lite which has a lower price point (\$2400 compared to UBC cost of ~\$4500).

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 25	P-1 Line Item Number / Title: 8827R80800 / Mobile Soldier Power	Item Number / Title [DODIC]: R09103 / Universal Battery Charger
----------------------------------------------------------------------------------	---------------------------------------------------------------------------	---------------------------------------------------------------------------

ID Code (A=Service Ready, B=Not Service Ready) : **MDAP/MAIS Code:**

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Army	Quantity	1,799	1,128	2,011	-	2,011
	Total Obligation Authority	8.456	7.865	10.066	-	10.066
Total:	Quantity	1,799	1,128	2,011	-	2,011
Secondary Distribution	Total Obligation Authority	8.456	7.865	10.066	-	10.066

(t) indicates the presence of a P-5a

UNCLASSIFIED

Exhibit P-5a, Procurement History and Planning: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 25	P-1 Line Item Number / Title: 8827R80800 / Mobile Soldier Power	Item Number / Title [DODIC]: R09103 / Universal Battery Charger
----------------------------------------------------------------------------------	---------------------------------------------------------------------------	---------------------------------------------------------------------------

Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty <i>(Each)</i>	Unit Cost <i>(\$ K)</i>	Specs Avail Now?	Date Revision Available	RFP Issue Date
Universal Battery Charger (UBC) Hardware		2018	Thales Defense / Arlington, VA	MIPR	Defense Logistic Agency	Aug 2018	Nov 2018	234	5.415	N		
Universal Battery Charger (UBC) Hardware		2019	Thales Defense / Arlington, VA	MIPR	ACC-APG	Aug 2019	Nov 2019	1,799	0.560	N		
Universal Battery Charger (UBC) Hardware		2020	Thales Defense / Arlington, VA	MIPR	ACC-APG	Aug 2020	Aug 2020	1,128	5.121	N		

Remarks:
P-21 not required. Program funding procures commercial off the shelf items for the Universal Battery Charger.

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 25: Combat Service Support Equipment	P-1 Line Item Number / Title: 8860M80200 / Force Provider
--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	---------------------------------------------------------------------

ID Code (A=Service Ready, B=Not Service Ready):	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
--------------------------------------------------------	-----------------------------------------------	--------------------------------------------

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	18	21	-	-	12	12	-	-	-	-	-	51
Gross/Weapon System Cost (<i>\$ in Millions</i>)	1,132.011	55.800	64.400	-	56.400	56.400	-	-	-	-	-	1,308.611
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	1,132.011	55.800	64.400	-	56.400	56.400	-	-	-	-	-	1,308.611
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	1,132.011	55.800	64.400	-	56.400	56.400	-	-	-	-	-	1,308.611

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Thousands</i>)	62,889.500	2,657.143	-	-	4,700.000	4,700.000	-	-	-	-	-	25,659.039

Description:

Force Provider is a fully integrated system providing critical basic life support for Soldiers deployed in remote areas. A Force Provider module provides billeting, field feeding and hygiene capabilities that include all the integrated utilities to include climate control, power generation, water and waste water systems, and fuel storage. A typical Force Provider module is capable of sustaining 150 personnel. Force Provider is fully containerized for rapid deployment and is transportable by rail, sea, land, and air using C-130, C-17 or C-5A aircraft. With the addition of Cold Weather Kits (CWKs), the module is deployable in temperatures as low as -15 degrees Fahrenheit. Missions for Force Provider are: Base camps for enforcement missions, peace keeping, theater reception/redeployment, intermediate staging base operations, humanitarian aid and disaster relief (both in theater and in austere environments). Force Provider modules are placed in Prepositioned Stocks to meet critical Operational Plan requirements of the Army Service Component Commands (ASCC). Each Force Provider module is configured in 150-Soldier or 50/75-Soldier expeditionary subsets that are capable of operating independently as mission requirements dictate. These systems are configured with optional Resource and Energy Efficiency Kits, Power Generation and Distribution Kits, Cold Weather Kits and Prime Power Kits which increase their deployment versatility. The Army Acquisition Objective for Force Provider is 226 each 150-Soldier modules and 20 each 50/75 Soldier modules. Twenty four of the 150-Soldier Modules will be equipped with energy-efficient Rigid-Walled Shelters in lieu of the standard soft-walled shelters.

Secondary Distribution	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
Army									
Quantity	21	-	-	12	12	-	-	-	-
Total Obligation Authority	55.800	64.400	-	56.400	56.400	-	-	-	-
Total:									
Secondary Distribution									
Quantity	21	-	-	12	12	-	-	-	-
Total Obligation Authority	55.800	64.400	-	56.400	56.400	-	-	-	-

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 25: Combat Service Support Equipment	P-1 Line Item Number / Title: 8860M80200 / Force Provider
--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	---------------------------------------------------------------------

ID Code (A=Service Ready, B=Not Service Ready):	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
--------------------------------------------------------	-----------------------------------------------	--------------------------------------------

Line Item MDAP/MAIS Code: N/A

Exhibits Schedule					Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-5	M80200 / Force Provider	P-5a, P-21			18 / 1,132.011	21 / 55.800	- / 64.400	- / -	12 / 56.400	12 / 56.400
P-40	Total Gross/Weapon System Cost				18 / 1,132.011	21 / 55.800	- / 64.400	- / -	12 / 56.400	12 / 56.400

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

Justification:
 FY 21 OCO procurement dollars in the amount of \$56.400 million supports the production of 12 Force Provider 150-Soldier equivalent systems, 6 Power Generation and Distribution Kits, and 6 Expeditionary TRICON Kits to replace battle losses in support of Operation Freedom Sentinel (OFS) and Operation Inherent Resolve (OIR). The Power Generation and Distribution kits and TRICON kits are subcomponents in Force Provider.

In accordance with Section 1815 of the FY 2008 National Defense Authorization Act (P.L. 110-181) this item is necessary for use by the active and reserve components of the Armed Forces for homeland defense missions, domestic emergency responses, and providing military support to civil authorities.

FY19 quantity of 12 and FY20 quantity of 12 showing correctly on P5; P40 reflects a quantity of 21 in FY19 and a quantity of 0 in FY20.

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army											Date: February 2020				
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 25						P-1 Line Item Number / Title: 8860M80200 / Force Provider					Item Number / Title [DODIC]: M80200 / Force Provider				
ID Code (A=Service Ready, B=Not Service Ready) :											MDAP/MAIS Code:				
Resource Summary				Prior Years		FY 2019		FY 2020		FY 2021 Base		FY 2021 OCO		FY 2021 Total	
Procurement Quantity (Units in Each)				18		21		-		-		12		12	
Gross/Weapon System Cost (\$ in Millions)				1,132.011		55.800		64.400		-		56.400		56.400	
Less PY Advance Procurement (\$ in Millions)				-		-		-		-		-		-	
Net Procurement (P-1) (\$ in Millions)				1,132.011		55.800		64.400		-		56.400		56.400	
Plus CY Advance Procurement (\$ in Millions)				-		-		-		-		-		-	
Total Obligation Authority (\$ in Millions)				1,132.011		55.800		64.400		-		56.400		56.400	
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>															
Initial Spares (\$ in Millions)				-		-		-		-		-		-	
Gross/Weapon System Unit Cost (\$ in Thousands)				62,889.500		2,657.143		-		-		4,700.000		4,700.000	

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
Flyaway Cost																		
Recurring Cost																		
Hardware Force Provider Module ^(t)	14,232.556	54	768.558	4,006.000	12	48.072	4,089.000	12	49.068	-	-	-	3,514.000	12	42.168	3,514.000	12	42.168
Hardware Power Generation and Distribution Kit	5,835.296	27	157.553	326.000	6	1.956	329.000	6	1.974	-	-	-	413.000	6	2.478	413.000	6	2.478
Hardware Expeditionary TRICON Set	2,894.508	63	182.354	390.000	3	1.170	400.000	3	1.200	-	-	-	649.000	6	3.894	649.000	6	3.894
Hardware ESPS protection kits	-	-	-	-	-	-	580.000	13	7.540	-	-	-	-	-	-	-	-	-
System Engineering/ Program Management	-	-	2.665	-	-	1.050	-	-	1.100	-	-	-	-	-	1.710	-	-	1.710
Logistics	-	-	3.197	-	-	0.175	-	-	0.175	-	-	-	-	-	1.200	-	-	1.200
Data	-	-	4.225	-	-	0.175	-	-	0.175	-	-	-	-	-	0.200	-	-	0.200
System Technical Support	-	-	4.178	-	-	2.450	-	-	2.098	-	-	-	-	-	3.880	-	-	3.880
Testing	-	-	0.295	-	-	0.150	-	-	-	-	-	-	-	-	0.225	-	-	0.225
Fielding	-	-	6.295	-	-	0.267	-	-	0.730	-	-	-	-	-	0.300	-	-	0.300
Hardware Spare Parts	-	-	2.691	-	-	0.335	-	-	0.340	-	-	-	-	-	0.345	-	-	0.345
Subtotal: Recurring Cost	-	-	1,132.011	-	-	55.800	-	-	64.400	-	-	-	-	-	56.400	-	-	56.400
Subtotal: Flyaway Cost	-	-	1,132.011	-	-	55.800	-	-	64.400	-	-	-	-	-	56.400	-	-	56.400
Gross/Weapon System Cost	62,889.500	18	1,132.011	2,657.143	21	55.800	-	-	64.400	-	-	-	4,700.000	12	56.400	4,700.000	12	56.400

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 25	P-1 Line Item Number / Title: 8860M80200 / Force Provider	Item Number / Title [DODIC]: M80200 / Force Provider
----------------------------------------------------------------------------------	---------------------------------------------------------------------	----------------------------------------------------------------

ID Code (A=Service Ready, B=Not Service Ready) : **MDAP/MAIS Code:**

Remarks:
 In FY21, the Hardware Power Generation and Distribution Kit unit price increased due to procuring an advanced generator (Digital Control System) with associated Microgrid System. FY20 Unit Cost is incorrect and should reflect \$400K.

 Hardware Expeditionary TRICON Set price has a production increase due to awarding a new contract in FY 20. The increased unit price incorporates inflation; plus procuring Containerized Food Sanitation Center (CFSC) and cold weather and prime power connection kits. FY20 Unit Cost is incorrect and should reflect \$630K.

 FY19 quantity of 12 and FY21 quantity of 12 showing correctly on P-5; P-40 reflects a quantity of 21 in FY19 and a quantity of 6 in FY21.

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Army	Quantity	21	-	-	12	12
	Total Obligation Authority	55.800	64.400	-	56.400	56.400
Total:	Quantity	21	-	-	12	12
Secondary Distribution	Total Obligation Authority	55.800	64.400	-	56.400	56.400

(t) indicates the presence of a P-5a

UNCLASSIFIED

Exhibit P-5a, Procurement History and Planning: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 25	P-1 Line Item Number / Title: 8860M80200 / Force Provider	Item Number / Title [DODIC]: M80200 / Force Provider
----------------------------------------------------------------------------------	---------------------------------------------------------------------	----------------------------------------------------------------

Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty <i>(Each)</i>	Unit Cost <i>(\$ K)</i>	Specs Avail Now?	Date Revision Available	RFP Issue Date
Hardware Force Provider Module ^(t)		2019	Letterkenny Army Depot / Chambersburg, PA	SS / FFP	Natick, MA	Apr 2019	Jan 2020	12	4,006.000	Y	Jun 2017	Jun 2017
Hardware Force Provider Module ^(t)		2020	Letterkenny Army Depot / Chambersburg, PA	SS / FFP	Natick, MA	Apr 2020	Jan 2021	12	4,089.000	Y	Jun 2017	Jun 2017
Hardware Force Provider Module	✓	2021	Letterkenny Army Depot / Chambersburg, PA	SS / FFP	Natick, MA	Apr 2021	Jan 2022	12	3,514.000	Y	Jun 2017	Jun 2017

^(t) indicates the presence of a P-21

UNCLASSIFIED

Exhibit P-21, Production Schedule: PB 2021 Army															Date: February 2020														
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 25										P-1 Line Item Number / Title: 8860M80200 / Force Provider										Item Number / Title [DODIC]: M80200 / Force Provider									

Cost Elements (Units in Each)						Fiscal Year 2019															Fiscal Year 2020															BALANCE																									
O C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2018	BAL DUE AS OF 1 OCT	Calendar Year 2019															Calendar Year 2020																																							
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P																															
Hardware Force Provider Module																																																													
Prior Years Deliveries: 54																																																													
1		2019	ARMY	12	0	12																A	-	-	-	-	-	-	-	-	-	-	-	4	-	4	-	4											0												
1		2020	ARMY	12	0	12																															A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12

UNCLASSIFIED

Exhibit P-21, Production Schedule: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 25	P-1 Line Item Number / Title: 8860M80200 / Force Provider	Item Number / Title [DODIC]: M80200 / Force Provider
----------------------------------------------------------------------------------	---------------------------------------------------------------------	----------------------------------------------------------------

Cost Elements <i>(Units in Each)</i>						Fiscal Year 2021												Fiscal Year 2022												BALANCE	
O C C #	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2020	BAL DUE AS OF 1 OCT	Calendar Year 2021												Calendar Year 2022												
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G		S E P
Hardware Force Provider Module																															
Prior Years Deliveries: 54																															
1		2019	ARMY	12	12	0																							0		
1		2020	ARMY	12	0	12	-	-	-	4	-	4	-	4															0		
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	

UNCLASSIFIED

Exhibit P-21, Production Schedule: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 25	P-1 Line Item Number / Title: 8860M80200 / Force Provider	Item Number / Title [DODIC]: M80200 / Force Provider
----------------------------------------------------------------------------------	---------------------------------------------------------------------	----------------------------------------------------------------

MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Year)			Procurement Leadtime (Months)							
		MSR For 2021	1-8-5 For 2021	MAX For 2021	Initial				Reorder			
					ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1	ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1
1	Letterkenny Army Depot - Chambersburg, PA	4	12	24	0	6	9	15	0	3	9	12

"A" in the Delivery Schedule indicates the Contract Award Date.

Note: Due to space limitations, quantities in the Exhibit P-21 delivery calendar are truncated and rounded based on the maximum quantity in the calendar as follows. If the maximum quantity is less than or equal to than 9,999, all quantities are shown as each. If the maximum quantity is between 10,000 and 999,999 all quantities are shown in thousands. If the maximum quantity is between 1,000,000 and 999,999,999 all quantities are shown in millions (rounded to the nearest thousand). If the maximum quantity is equal or greater than 1,000,000,000 all quantities are shown in billions (rounded to the nearest million).

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity:
2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 25: Combat Service Support Equipment

P-1 Line Item Number / Title:
9120M65800 / Field Feeding Equipment

ID Code (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** N/A **Other Related Program Elements:** 0604713A

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	326	1,957	115	-	12	12	-	-	-	-	-	2,410
Gross/Weapon System Cost (<i>\$ in Millions</i>)	563.776	18.556	15.973	-	2.279	2.279	-	-	-	-	-	600.584
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	563.776	18.556	15.973	-	2.279	2.279	-	-	-	-	-	600.584
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	563.776	18.556	15.973	-	2.279	2.279	-	-	-	-	-	600.584
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>												
Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Thousands</i>)	1,729.374	9.482	138.896	-	189.917	189.917	-	-	-	-	-	249.205

Description:

The Field Feeding and Refrigeration program provides equipment to conduct tactical food service operations. Field Feeding is a combat multiplier which improves morale and enhances the Soldier's physical and cognitive capabilities. Associated with food service operations are storage, preparation, serving and cleanup. Equipment items include: field kitchens, food sanitation centers, and refrigerated containers. This program supports production of the Multi Temperature Refrigerated Container System (MTRCS), Assault Kitchen (AK), Containerized Kitchen (CK) and Field Feeding Sanitation Center (FSC). This equipment in conjunction with food service personnel and field rations, comprises the Army Field Feeding System (AFFS) which supports the Army standard of a minimum of one hot prepared meal per day in the field. This program provides a critical capability that supports Army transformation and modularity concept while maintaining readiness through fielding and integration of new equipment. It enhances the field Soldier's well being and reduces requirements for related lift demands, combat zone footprint, and logistical support costs. AAO is as the following:

1. AK = 2274
2. MTRCS = 2024
3. CK = 972
4. FSC = 2693

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
Army	Quantity	1,902	89	-	12	12	-	-	-	-
	Total Obligation Authority	16.081	14.300	-	2.279	2.279	-	-	-	-
ANG	Quantity	55	26	-	-	-	-	-	-	-
	Total Obligation Authority	2.475	1.673	-	-	-	-	-	-	-
Total: Secondary Distribution	Quantity	1,957	115	-	12	12	-	-	-	-
	Total Obligation Authority	18.556	15.973	-	2.279	2.279	-	-	-	-

Justification:

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 25: Combat Service Support Equipment		P-1 Line Item Number / Title: 9120M65800 / Field Feeding Equipment
ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: 0604713A
Line Item MDAP/MAIS Code: N/A		
<p>FY 2021 OCO procurement dollars in the amount of \$2.279 million supports production of 12 Multi-Temperature Refrigerated Container Systems (MTRCS) to replace losses of deployed assets. In accordance with Section 1815 of the FY 2008 National Defense Authorization Act (P.L. 110-181), this item is necessary for use by the active and reserve components of the Armed Forces for homeland defense missions, domestic emergency responses, and providing military support to civil authorities.</p> <p>FY20 MTRCS quantity is 85. The parent Field Feeding Equipment P-40 should read a quantity of 111 in FY20.</p>		

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 25: Combat Service Support Equipment	P-1 Line Item Number / Title: 9140MA7804 / Cargo Aerial Del & Personnel Parachute Systems
--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-----------------------------------------------------------------------------------------------------

ID Code (A=Service Ready, B=Not Service Ready):	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
--------------------------------------------------------	-----------------------------------------------	--------------------------------------------

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	3,638	5,832	8,561	7,966	28	7,994	7,239	8,400	7,764	3,092	-	52,520
Gross/Weapon System Cost (<i>\$ in Millions</i>)	648.127	46.835	44.662	53.021	2.040	55.061	47.755	39.808	38.978	25.110	-	946.336
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	648.127	46.835	44.662	53.021	2.040	55.061	47.755	39.808	38.978	25.110	-	946.336
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	648.127	46.835	44.662	53.021	2.040	55.061	47.755	39.808	38.978	25.110	-	946.336

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Thousands</i>)	178.155	8.031	5.217	6.656	72.857	6.888	6.597	4.739	5.020	8.121	-	18.019

Description:

The Advanced Tactical Parachute System (ATPS) is the Army's next generation parachute system for personnel static line airdrop operations and consists of the T-11 (non-steerable) and MC-6 (steerable) systems. The T-11 consists of an integrated harness, reserve parachute and the T-11 main canopy for mass tactical static line airdrop operations. The T-11 replaced the T-10 main canopy, the Modified Improved Reserve Parachute System (MIRPS) and the existing parachute harness. The total Army Acquisition Objective (AAO) of 43,708 has been procured. Fielding was completed in FY15. The MC-6 consists of the same reserve and harness as the T-11 with the MC-6 main steerable canopy. The MC-6 replaced the MC-1. The total MC-6 AAO of 25,649 has been procured and fielding was completed in FY14.

-Parachutes provided to the field during the initial fielding of the MC-6 and T-11 are reaching the end of their service life and replacement systems are being procured to maintain units' mission readiness. Both the T-11 and MC-6 are Class VII items centrally funded and controlled, and as such, replacement systems are procured and fielded to operational units by the Project Manager through multi-year contracts.

- The RA-1 Parachute System is replacing the current MC-4 Ram Air Parachute System with a multi-mission High Altitude Low Opening (HALO) and High Altitude High Opening (HAHO) standoff insertion capability as well as a static line deployed insertion capability. The RA-1 allows personnel to exit at altitudes between 3,500 ft and 35,000 ft Mean Sea Level with a total jumper weight of 450 lbs. The AAO is 5,470 and is being procured from FY14 - FY21.

-The Parachutist Navigation System (PARANAVSYS) provides a Global Positioning System (GPS) capability for the RA-1 parachutists. Initial procurement began in 2019 with an AAO of 1,887.

-Joint Precision Air Drop System (JPADS) represents the DoD's next generation of cargo aerial delivery. The system provides autonomous guidance of loads dropped from altitudes up to 25,000 feet Mean Sea Level (MSL) at increments of 2,000 (2K) and 10,000 (10K) pounds. JPADS will allow precise delivery of critical supplies to the Warfighter on the ground while allowing aircraft delivering payloads to fly at significantly safer altitudes. This line includes both 2K and 10K procurement. AAO for JPADS 2K systems is 1,557 and the AAO for 10K systems is 467.

Secondary Distribution	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
Army									
Quantity	5,544	5,635	7,602	28	7,630	7,089	5,069	7,128	2,691
Total Obligation Authority	42.889	36.262	49.488	2.040	51.528	46.984	36.348	35.798	23.105

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 25: Combat Service Support Equipment	P-1 Line Item Number / Title: 9140MA7804 / Cargo Aerial Del & Personnel Parachute Systems
--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-----------------------------------------------------------------------------------------------------

ID Code (A=Service Ready, B=Not Service Ready):	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
--------------------------------------------------------	-----------------------------------------------	--------------------------------------------

Line Item MDAP/MAIS Code: N/A

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
ANG	Quantity	288	2,926	364	-	364	150	3,331	636	401
	Total Obligation Authority	3.946	8.400	3.533	-	3.533	0.771	3.460	3.180	2.005
Total: Secondary Distribution	Quantity	5,832	8,561	7,966	28	7,994	7,239	8,400	7,764	3,092
	Total Obligation Authority	46.835	44.662	53.021	2.040	55.061	47.755	39.808	38.978	25.110

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 25: Combat Service Support Equipment **P-1 Line Item Number / Title:** 9140MA7804 / Cargo Aerial Del & Personnel Parachute Systems

ID Code (A=Service Ready, B=Not Service Ready): **Program Elements for Code B Items:** N/A **Other Related Program Elements:** N/A

Line Item MDAP/MAIS Code: N/A

Exhibits Schedule					Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-5	MA7801 / Advanced Tactical Parachute System				3,548 / 484.325	5,780 / 41.104	8,528 / 42.622	7,966 / 53.021	- / -	7,966 / 53.021
P-5	MA7806 / Precision Airdrop	P-5a			90 / 163.802	52 / 5.731	33 / 2.040	- / -	28 / 2.040	28 / 2.040
P-40	Total Gross/Weapon System Cost				3,638 / 648.127	5,832 / 46.835	8,561 / 44.662	7,966 / 53.021	28 / 2.040	7,994 / 55.061

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

Justification:
 FY 21 Base procurement dollars in the amount of \$53.077 million supports the procurement of MC-6 (3,184), RA-1 (232), T-11 (4,279), and T-11R Pack Trays (10,000). The FY21 quantity shown in above table for MA7801 reflects the numbers for MC-6, T-11 and RA-1 systems only.

FY 2021 OCO procurement dollars in the amount of \$2.040 million supports production of 28 Joint Precision Airdrop 2K systems consisting of Modular Autonomous Guidance Unit (MAGU) and harness to replace battle losses.

In accordance with Section 1815 of the FY2008 National Defense Authorization Act (P.L. 110-181), this item is necessary for use by the active and reserve components of the Armed Forces for homeland defense missions, domestic emergency responses, and providing military support to civil authorities.

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 25	P-1 Line Item Number / Title: 9140MA7804 / Cargo Aerial Del & Personnel Parachute Systems	Item Number / Title [DODIC]: MA7801 / Advanced Tactical Parachute System

ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:
---------------------------------------------------------	------------------------

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Procurement Quantity (Units in Each)	3,548	5,780	8,528	7,966	-	7,966
Gross/Weapon System Cost (\$ in Millions)	484.325	41.104	42.622	53.021	-	53.021
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	484.325	41.104	42.622	53.021	-	53.021
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	484.325	41.104	42.622	53.021	-	53.021

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (\$ in Millions)	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Thousands)	136.506	7.111	4.998	6.656	-	6.656

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
Flyaway Cost																		
Recurring Cost																		
Program Support (PM, Engineering, Logistics)	-	-	14.089	-	-	5.050	-	-	2.003	-	-	2.500	-	-	-	-	-	2.500
New Equipment Training	27,247.000	3	81.741	4,684.000	1	4.684	-	-	3.100	3,004.000	1	3.004	-	-	-	3,004.000	1	3.004
T-11	4.458	45,883	204.546	5.413	5,191	28.100	4.000	4,846	19.384	5.796	4,279	24.801	-	-	-	5.796	4,279	24.801
T-11R Pack Tray	0.200	10,010	2.002	-	-	-	0.200	5,018	1.004	0.500	10,000	5.000	-	-	-	0.500	10,000	5.000
MC-6	4.981	26,535	132.170	-	-	-	3.800	3,463	13.159	4.622	3,184	14.716	-	-	-	4.622	3,184	14.716
RA-1 (ARAPS)	11.010	4,119	45.350	15.000	200	3.000	13.095	200	2.619	12.931	232	3.000	-	-	-	12.931	232	3.000
RA-1 SPARE PARTS	1,475.333	3	4.426	1.000	100	0.100	-	-	0.194	-	-	-	-	-	-	-	-	-
PARANAVSYS RTK	-	-	-	12.214	14	0.171	12.200	95	1.159	-	-	-	-	-	-	-	-	-
<i>Subtotal: Recurring Cost</i>	<i>-</i>	<i>-</i>	<i>484.324</i>	<i>-</i>	<i>-</i>	<i>41.105</i>	<i>-</i>	<i>-</i>	<i>42.622</i>	<i>-</i>	<i>-</i>	<i>53.021</i>	<i>-</i>	<i>-</i>	<i>-</i>	<i>-</i>	<i>-</i>	<i>53.021</i>
<i>Subtotal: Flyaway Cost</i>	<i>-</i>	<i>-</i>	<i>484.324</i>	<i>-</i>	<i>-</i>	<i>41.105</i>	<i>-</i>	<i>-</i>	<i>42.622</i>	<i>-</i>	<i>-</i>	<i>53.021</i>	<i>-</i>	<i>-</i>	<i>-</i>	<i>-</i>	<i>-</i>	<i>53.021</i>
Gross/Weapon System Cost	136.506	3,548	484.325	7.111	5,780	41.104	4.998	8,528	42.622	6.656	7,966	53.021	-	-	-	6.656	7,966	53.021

Remarks:

FY21 Increase in Unit Cost: The T-11 systems are bought using multi-year contracts with two vendors and the unit price is determined by the average system cost between the two vendors. System prices in multi-year contracts increase yearly and step-ladder pricing is also a determining factor for the T-11 pricing for each contract. The MC-6 unit cost is a projected price which has increased based on the increased T-11 unit costs. The unit cost of the T-11R pack tray has increased because a modified extractor chute will have to be fielded along with the pack tray.

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 25	P-1 Line Item Number / Title: 9140MA7804 / Cargo Aerial Del & Personnel Parachute Systems	Item Number / Title [DODIC]: MA7801 / Advanced Tactical Parachute System

ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:
---------------------------------------------------------	------------------------

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Army	Quantity	5,492	5,602	7,602	-	7,602
	Total Obligation Authority	37.158	34.222	49.488	-	49.488
ANG	Quantity	288	2,926	364	-	364
	Total Obligation Authority	3.946	8.400	3.533	-	3.533
Total: Secondary Distribution	Quantity	5,780	8,528	7,966	-	7,966
	Total Obligation Authority	41.104	42.622	53.021	-	53.021

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 25	P-1 Line Item Number / Title: 9140MA7804 / Cargo Aerial Del & Personnel Parachute Systems	Item Number / Title [DODIC]: MA7806 / Precision Airdrop

ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:
---------------------------------------------------------	------------------------

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Procurement Quantity (Units in Each)	90	52	33	-	28	28
Gross/Weapon System Cost (\$ in Millions)	163.802	5.731	2.040	-	2.040	2.040
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	163.802	5.731	2.040	-	2.040	2.040
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	163.802	5.731	2.040	-	2.040	2.040

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (\$ in Millions)	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Thousands)	1,820.022	110.212	61.818	-	72.857	72.857

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
Flyaway Cost																		
Recurring Cost																		
Hardware JPADS 2K ^(†)	285.815	265	75.741	33.939	33	1.120	33.939	33	1.120	-	-	-	36.000	28	1.008	36.000	28	1.008
Hardware Spares JPADS 2K	-	-	0.096	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sys Test & Evaluate, Production JPADS 2K	-	-	0.056	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sys Engineer/Program Mgt JPADS 2K	-	-	0.033	-	-	0.460	-	-	0.470	-	-	-	-	-	0.432	-	-	0.432
Fielding/Training JPADS 2K	-	-	0.043	-	-	0.400	-	-	0.450	-	-	-	-	-	0.300	-	-	0.300
Data JPADS 2K	-	-	0.059	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Engineering Changes JPADS 2K	-	-	0.050	-	-	-	-	-	-	-	-	-	-	-	0.300	-	-	0.300
CLS/Shipping JPADS 2K	-	-	0.046	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hardware JPADS 10K ^(†)	499.690	113	56.465	100.000	28	2.800	-	-	-	-	-	-	-	-	-	-	-	-
System Test & Evaluation, Production	-	-	5.646	-	-	0.140	-	-	-	-	-	-	-	-	-	-	-	-
Engineering Changes	-	-	5.984	-	-	0.140	-	-	-	-	-	-	-	-	-	-	-	-
Fielding/Training	-	-	6.289	-	-	0.196	-	-	-	-	-	-	-	-	-	-	-	-

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 25		P-1 Line Item Number / Title: 9140MA7804 / Cargo Aerial Del & Personnel Parachute Systems
ID Code (A=Service Ready, B=Not Service Ready) :		MDAP/MAIS Code:
Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.		

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
System Engineering/ Program Management	-	-	6.090	-	-	0.070	-	-	-	-	-	-	-	-	-	-	-	-
Data	-	-	5.319	-	-	0.115	-	-	-	-	-	-	-	-	-	-	-	-
Spares	-	-	1.208	-	-	0.168	-	-	-	-	-	-	-	-	-	-	-	-
CLS/Shipping	-	-	0.677	-	-	0.122	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Recurring Cost</i>	-	-	163.802	-	-	5.731	-	-	2.040	-	-	-	-	-	2.040	-	-	2.040
<i>Subtotal: Flyaway Cost</i>	-	-	163.802	-	-	5.731	-	-	2.040	-	-	-	-	-	2.040	-	-	2.040
Gross/Weapon System Cost	1,820.022	90	163.802	110.212	52	5.731	61.818	33	2.040	-	-	-	72.857	28	2.040	72.857	28	2.040

Remarks:
FY21 qty of 28 OCO showing correctly on P5; P40 reflects 0.

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Army	Quantity	52	33	-	28	28
	Total Obligation Authority	5.731	2.040	-	2.040	2.040
Total:	Quantity	52	33	-	28	28
Secondary Distribution	Total Obligation Authority	5.731	2.040	-	2.040	2.040

(t) indicates the presence of a P-5a

UNCLASSIFIED

Exhibit P-5a, Procurement History and Planning: PB 2021 Army							Date: February 2020					
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 25			P-1 Line Item Number / Title: 9140MA7804 / Cargo Aerial Del & Personnel Parachute Systems				Item Number / Title [DODIC]: MA7806 / Precision Airdrop					

Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty <i>(Each)</i>	Unit Cost <i>(\$ K)</i>	Specs Avail Now?	Date Revision Available	RFP Issue Date
Hardware JPADS 2K	✓	2019	Letterkenny Army Depot / Warren, MI	C / IDIQ	RDECOM, Natick MA	Feb 2019	Jul 2019	33	33.939	Y		Jun 2014
Hardware JPADS 2K	✓	2020	Letterkenny Army Depot / Warren, MI	C / IDIQ	RDECOM, Natick, MA	Mar 2020	Aug 2020	33	33.939	Y		
Hardware JPADS 2K	✓	2021	TBD / TBD	C / IDIQ	RDECOM, Natick, MA	Mar 2021	Aug 2021	28	36.000	Y		
Hardware JPADS 10K		2018	Airborne Systems NA / Pennsauken, NJ	C / IDIQ	RDECOM, Natick, MA	Mar 2018	Aug 2018	15	97.000	Y		Sep 2013
Hardware JPADS 10K		2019	Airborne Systems NA / Pennsauken, NJ	C / IDIQ	RDECOM, Natick, MA	Mar 2019	Aug 2019	28	100.000	Y		

Remarks:
JPADS 2K contract is an IDIQ with multiple vendors with each delivery order completed amongst the qualified vendors.

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 25: Combat Service Support Equipment	P-1 Line Item Number / Title: 9462R70001 / Family Of Engr Combat and Construction Sets
--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------------------

ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
----------------------------------------------------------	-----------------------------------------------	--------------------------------------------

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	495	121	302	691	-	691	764	-	-	-	-	2,373
Gross/Weapon System Cost (<i>\$ in Millions</i>)	247.346	13.010	11.451	23.324	-	23.324	30.404	-	-	-	-	325.535
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	247.346	13.010	11.451	23.324	-	23.324	30.404	-	-	-	-	325.535
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	247.346	13.010	11.451	23.324	-	23.324	30.404	-	-	-	-	325.535

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Thousands</i>)	499.689	107.521	37.917	33.754	-	33.754	39.796	-	-	-	-	137.183

Description:

The Family of Engineering Combat and Construction Sets (ECACS) is a family of systems that will support combat operations by construction engineer teams in urban, rural, and subterranean and dense environments. ECACS sets utilized in the range of urban environments will aid in detection, protection, surveillance, monitoring, evacuation and clearing. ECACS sets utilized in the range rural environments will allow clearing and troop mobility support areas to include airfields, ports, facilities, and roads.

The Hydraulic, Electric, Pneumatic, Petroleum Operated Equipment (HEPPOE) replaces two legacy systems; the Hydraulic Electric Tool Outfit (HETO) and the Pneumatic Tool & Compressor Outfit (PTCO). Currently there is a large capability gap in the field that severely needs this materiel solution for a rapidly available, portable and modernized tool kit for the Engineer community, specifically GAP #11, BCT Lethality and Mobility of the critical large scale ground combat operations gaps and Gap #8, wet gap crossing. It supports missions by clearing buildings for repair and construction, clearing areas around road construction, port openings, transition and reconstruction operations. Supports critical Infrastructure repair and rescue during natural disasters and civil emergencies. Enables civil authority the security and stability in all areas of Theater Construction Operations. Army Acquisition Objective (AAO) for Hydraulic Electric Pneumatic Petroleum Operated Equipment (HEPPOE) is 1017.

The Engineer Equipment Set: Urban Operations, Platoon Set (UOpPS) consists of high technology equipment that provides Soldiers with enhanced capabilities to perform missions in urbanized or complex terrain. The Engineer Equipment Set: Urban Operations, Platoon Set (UOpPS) uniquely fills capability gaps that exist at the platoon level for conducting operations in the range of urban environments, specifically GAP #11, BCT Lethality and Mobility of the critical large scale ground combat operations gaps and Gap #8, wet gap crossing. It provides engineers and Soldiers with specialized tools enabling them to conduct operations in urban environments in a safe, more expedient manner. The components include remote viewing instruments, detectors for explosives and gases, portable welders, metal cutting torches, rescue tools, winch, and battery operated drills and saws. The set standardizes tools, reducing logistical support and provides a Type Classified (TC)-standard Army system. Army Acquisition Objective (AAO) for Urban Operations, Platoon Set (UOpPS) is 1177.

The Engineer Equipment Set: Urban Operations, Squad Set (UOpSS) consists of equipment that provides Soldiers with enhanced capabilities to perform missions in urbanized or complex terrain. The Engineer Equipment Set: Urban Operations, Squad Set (UOpSS) uniquely fills capability gaps that exist at the squad level for conducting operations in the range of urban environments, specifically GAP #11, BCT Lethality and Mobility of the critical large scale ground combat operations gaps and Gap #8, wet gap crossing. Components include portable blast shield, collapsible lightweight assault ladders, mechanical entry tools, and rappelling gear. This set supports dismounted engineer Soldiers and others in conducting Military Operations in Urban Terrain (MOUT). The set standardizes tools, reducing logistical support and provides a Type Classified (TC)-standard Army system. Army Acquisition Objective (AAO) for Urban Operations, Squad Set (UOpSS) is 1841.

Vertical Skills Engineer Construction Kits (VSECK) has six types which each provide tools and power equipment to meet maintenance and construction mission requirements.

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 25: Combat Service Support Equipment		P-1 Line Item Number / Title: 9462R70001 / Family Of Engr Combat and Construction Sets
ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
Line Item MDAP/MAIS Code: N/A		
<p>VSECK Type I Carpenters Tool Kit Squad (CTKS) is a new configuration containing industrial quality hand tools, safety equipment, deployment bags and tool belts for up to eight Construction Engineers secured in a waterproof rapid inventory case. Currently, there is a large capability gap in the field that severely needs this materiel solution for a rapidly available, portable and modernized tool kit for the Engineer community, specifically GAP #11, BCT Lethality and Mobility of the critical large scale ground combat operations gaps and Gap #8, wet gap crossing. Hand tools include hammers, utility knives, chisels, punches, hacksaws, hand saws, pliers, screwdrivers, squares and tape measures. VSECK Type I replaces one legacy system through modernization, consolidation and optimization. The legacy system this replaces does not meet current mission requirements and does not have any warranty associated with the current components. Army Acquisition Objective for Type I is 876.</p> <p>VSECK Type II Carpenters Supplemental Tool Kit (CSTK) is a new configuration containing battery powered & carpentry hand tools to increase productivity at remote sites supporting a platoon size element. Currently, there is a large capability gap in the field that severely needs this materiel solution for a rapidly available, portable and modernized tool kit for the Engineer community, specifically GAP #11, BCT Lethality and Mobility of the critical large scale ground combat operations gaps and Gap #8, wet gap crossing. Cordless power tools include: hammer drills, right angle drills, circular saws, jig saws and reciprocating saws. The cordless tools are a minimum of 18v and standardized to use the same power source with a power management system capable of recharging multiple power sources simultaneously. VSECK Type II replaces one legacy system through modernization, consolidation and optimization. The legacy system this replaces does not meet current mission requirements and does not have any warranty associated with the current components. Army Acquisition Objective for Type II is 542.</p> <p>VSECK Type III Carpenters Tool Kit (CTK) is a new configuration containing commercial pneumatic, electric & hand carpentry tools that enable Soldiers to perform common carpentry tasks including construction of fighting positions, shelters, base camps, POW camps, temporary structures, bridges, ports & repair of existing structures. Currently there is a large capability gap in the field that severely needs this materiel solution for a rapidly available, portable and modernized tool kit for the Engineer community, specifically Gap #11, BCT Lethality and Mobility of the critical large scale ground combat operations gaps. Tool load includes pneumatic nailer, blow gun, router, jig saw, 10" table saw, 10" circular saw, 14" cut off saw, 12" miter saw, nibbler, electric shears and tile cutter. VSECK Type III replaces one legacy system through modernization, consolidation and optimization. The legacy system this replaces does not meet current mission requirements and does not have any warranty associated with the current components. Army Acquisition Objective for Type III is 297.</p> <p>VSECK Type IV Electricians Tool Kit (ETK) enables 3 electricians to perform construction & maintenance tasks related to distribution & transmission of electrical power: interior & exterior lighting, installation & repair of lighting & wiring aboard ships. Kit contains conduit benders, auger bits, pliers, knives, wood chisels, crimpers, tube & PVC cutters, key sets, levels multimeter, strippers, wrenches, ladders, electric saws & drills and flood lights. Currently there is a large capability gap in the field that severely needs this materiel solution for a rapidly available, portable and modernized tool kit for the Engineer community, specifically Gap #11, BCT Lethality and Mobility of the critical large scale ground combat operations gaps. VSECK IV replaces one legacy system through modernization, consolidation and optimization. The legacy system this replaces does not meet current mission requirements and does not have any warranty associated with the current components. Army Acquisition Objective for Type IV is 436.</p> <p>VSECK Type V Mason and Concrete Tool Kit (MCTK) includes brick hammers, levels, chalk line, rulers, plumb bobs, trowels, floats, bull floats, specialized floats, screeds, edger, groover, brooms, hoses & nozzles, mortar mixer, scaffolding, sealant sprayer, pliers, vibrator, cut-off saws, grinder, rebar cutters & benders, hacksaws, knee boards, mortar boards & stands, buckets, brushes, laser level, come-a-long, tarps, hoes, rakes & shovels. Currently there is a large capability gap in the field that severely needs this materiel solution for a rapidly available, portable and modernized tool kit for the Engineer community, specifically Gap #11, BCT Lethality and Mobility of the critical large scale ground combat operations gaps. VSECK Type V replaces one legacy system through modernization, consolidation and optimization. The legacy system this replaces does not meet current mission requirements and does not have any warranty associated with the current components. Army Acquisition Objective for Type V is 612.</p> <p>VSECK Type VI Plumbers and Pipefitters Tool Kit (PPTK) is specialized equipment required by a team of plumbers and pipefitters stock to perform construction and maintenance tasks working with metal, brass, aluminum, PVC or PEX. Currently there is a large capability gap in the field that severely needs this materiel solution for a rapidly available, portable and modernized tool kit for the Engineer community, specifically Gap #11, BCT Lethality and Mobility of the critical large scale ground combat operations gaps. Contains hand tools enabling performance of individual & collective tasks related to heating & air conditioning, water distribution, waste water removal & solid waste removal. The tool load includes: hammers, hack saws, chisels, wrenches, pliers, putty knives, screwdrivers, saws, level plumb bob, tool box, ladder, powered saws & drills, pry & line up bars, tubing & pipe cutters, floodlight, key set, & plunger. VSECK VI replaces three legacy systems through modernization, consolidation and optimization. The legacy systems this replaces do not meet current mission requirements and do not have any warranty associated with the current components. Army Acquisition Objective for Type VI is 309.</p>		

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 25: Combat Service Support Equipment		P-1 Line Item Number / Title: 9462R70001 / Family Of Engr Combat and Construction Sets
ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
Line Item MDAP/MAIS Code: N/A		
A baby under Family of Engineering Combat and Construction Sets (ECACS) to capture Family of Power Utility Kit(FOPUK) will be created because FOPUK can no longer be procured under Items Less than \$5M line.		

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
Army	Quantity	70	149	112	-	112	85	-	-	-
	Total Obligation Authority	9.837	6.112	3.531	-	3.531	2.415	-	-	-
ANG	Quantity	51	75	377	-	377	430	-	-	-
	Total Obligation Authority	3.173	4.087	16.160	-	16.160	20.425	-	-	-
AR	Quantity	-	78	202	-	202	249	-	-	-
	Total Obligation Authority	-	1.252	3.633	-	3.633	7.564	-	-	-
Total: Secondary Distribution	Quantity	121	302	691	-	691	764	-	-	-
	Total Obligation Authority	13.010	11.451	23.324	-	23.324	30.404	-	-	-

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 25: Combat Service Support Equipment		P-1 Line Item Number / Title: 9462R70001 / Family Of Engr Combat and Construction Sets
ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A

Line Item MDAP/MAIS Code: N/A

Exhibits Schedule					Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-5	R70110 / HEPPOE	P-5a	A		67 / 115.383	4 / 4.376	- / -	- / -	- / -	- / -
P-5	R70120 / URBAN OPERATIONS, PLATOON SET	P-5a	A		77 / 64.531	24 / 5.493	12 / 2.043	27 / 4.275	- / -	27 / 4.275
P-5	R70130 / URBAN OPERATIONS, SQUAD SET	P-5a	A		126 / 61.650	44 / 1.368	40 / 3.299	54 / 4.074	- / -	54 / 4.074
P-5	R70170 / Vertical Skills Engr Const Kit: Type VI	P-5a	A		84 / 2.404	10 / 0.434	97 / 2.399	41 / 1.712	- / -	41 / 1.712
P-5	R70180 / Vertical Skills Engr Const Kit: Type V	P-5a	A		23 / 0.947	4 / 0.225	24 / 0.959	87 / 3.675	- / -	87 / 3.675
P-5	R70185 / Vertical Skills Engr Const Kit: Type IV	P-5a	A		23 / 0.575	4 / 0.278	33 / 0.809	82 / 1.964	- / -	82 / 1.964
P-5	R70195 / Vertical Skills Engr Const Kit: Type III	P-5a	A		26 / 0.768	5 / 0.216	15 / 0.505	- / 0.473	- / -	- / 0.473
P-5	R70196 / Vertical Skills Engr Const Kit: Type II	P-5a	A		28 / 0.627	10 / 0.381	38 / 0.841	254 / 5.232	- / -	254 / 5.232
P-5	R70198 / Vertical Skills Engr Const Kit: Type I	P-5a	A		41 / 0.461	16 / 0.239	43 / 0.596	146 / 1.919	- / -	146 / 1.919
P-40	Total Gross/Weapon System Cost				495 / 247.346	121 / 13.010	302 / 11.451	691 / 23.324	- / -	691 / 23.324

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

Justification:
 There are no FY21 President's Budget (PB) Dollars for the Hydraulic Electric Pneumatic Petroleum Operated Equipment (HEPPOE). Currently there is a large capability gap in the field that severely needs this materiel solution for a rapidly available, portable and modernized tool kit for the Engineer community, specifically GAP #11, BCT Lethality and Mobility of the critical large scale ground combat operations gaps and GAP #8, wet gap crossing.

FY21 base funding in the amount of \$4.275 million procures 27 Urban Operations Platoon Sets. The specialized high technology tools included in this kit provide engineers, infantry, military police and other military units with enhanced capability to conduct operations in urban environments in a safe and expeditious manner. This set will standardize the tools used for conducting urban operations thereby reducing logistical support and provide a Type Classified (TC)-standard Army system.

The Engineer Equipment Set: Urban Operations, Platoon Set (UOpPS) uniquely fills capability gaps that exist at the platoon level for conducting operations in the range of urban environments, specifically GAP #11, BCT Lethality and Mobility of the critical large scale ground combat operations gaps and Gap#8, wet gap crossing.

FY21 base funding in the amount of \$4.074 million procures 54 Urban Operations Squad Sets. The specialized low technology tools included in this set provide engineers, infantry, military police and other military units with enhanced capability to conduct operations in urban environments in a safe and expeditious manner. This set will standardize the tools used for conducting urban operations thereby reducing logistical support and provide a Type Classified (TC)-Army system.

The Engineer Equipment Set: Urban Operations, Squad Set (UOpSS) uniquely fills capability gaps that exist at the squad level for conducting operations in the range of urban environments, specifically GAP #11, BCT Lethality and Mobility of the critical large scale ground combat operations gaps and Gap#8, wet gap crossing.

FY21 base funding in the amount of \$1.919 million procures 146 Type I VSECK assets. This will increase productivity, expand capabilities, reduce risk and will contribute to rapid mobility of Construction Engineers. Providing this capability to the Soldier will increase the Soldier's ability to complete the required missions, provide support to civil authorities and deter/defeat hybrid threats in support of the Army process.

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 25: Combat Service Support Equipment		P-1 Line Item Number / Title: 9462R70001 / Family Of Engr Combat and Construction Sets
ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
Line Item MDAP/MAIS Code: N/A		
<p>Currently there is a large capability gap in the field that severely needs this materiel solution for a rapidly available, portable and modernized tool kit for the Engineer community, specifically GAP #11, BCT Lethality and Mobility of the critical large scale ground combat operations gaps and Gap#8, wet gap crossing.</p> <p>FY21 base funding in the amount of \$5.232 million procures 254 Type II VSECK assets. This will increase productivity, expand capabilities, reduce risk and will contribute to rapid mobility of Construction Engineers. Providing this capability to the Soldier will increase the Soldier's ability to complete the required missions, provide support to civil authorities and deter/defeat hybrid threats in support of the Army process.</p> <p>Currently there is a large capability gap in the field that severely needs this materiel solution for a rapidly available, portable and modernized tool kit for the Engineer community, specifically GAP #11, BCT Lethality and Mobility of the critical large scale ground combat operations gaps and Gap#8, wet gap crossing.</p> <p>FY21 base funding in the amount of \$.473 million is in support of the Type III VSECK assets. This will increase productivity, expand capabilities, reduce risk and will contribute to rapid mobility of Construction Engineers. Providing this capability to the soldier will increase the Soldier's ability to complete the required missions, provide support to civil authorities and deter/defeat hybrid threats in support of the Army process.</p> <p>Currently there is a large capability gap in the field that severely needs this materiel solution for a rapidly available, portable and modernized tool kit for the Engineer community, specifically GAP #11, BCT Lethality and Mobility of the critical large scale ground combat operations gaps.</p> <p>FY21 base funding in the amount of \$1.964 million procures 82 Type IV VSECK assets. This will increase productivity, expand capabilities, reduce risk and will contribute to rapid mobility of Construction Engineers. Providing this capability to the Soldier will increase the Soldier's ability to complete the required missions, provide support to civil authorities and deter/defeat hybrid threats in support of the Army process.</p> <p>Currently there is a large capability gap in the field that severely needs this materiel solution for a rapidly available, portable and modernized tool kit for the Engineer community, specifically GAP #11, BCT Lethality and Mobility of the critical large scale ground combat operations gaps.</p> <p>FY21 base funding in the amount of \$3.675 million procures 87 Type V VSECK assets. This will increase productivity, expand capabilities, reduce risk and will contribute to rapid mobility of Construction Engineers. Providing this capability to the Soldier will increase the Soldier's ability to complete the required missions, provide support to civil authorities and deter/defeat hybrid threats in support of the Army process.</p> <p>Currently there is a large capability gap in the field that severely needs this materiel solution for a rapidly available, portable and modernized tool kit for the Engineer community, specifically GAP #11, BCT Lethality and Mobility of the critical large scale ground combat operations gaps.</p> <p>FY21 base funding in the amount of \$1.712 million procures 41 Type VI VSECK assets. This will increase productivity, expand capabilities, reduce risk and will contribute to rapid mobility of Construction Engineers. Providing this capability to the Soldier will increase the Soldier's ability to complete the required missions, provide support to civil authorities and deter/defeat hybrid threats in support of the Army process.</p> <p>Currently there is a large capability gap in the field that severely needs this materiel solution for a rapidly available, portable and modernized tool kit for the Engineer community, specifically GAP #11, BCT Lethality and Mobility of the critical large scale ground combat operations gaps.</p> <p>In accordance with Section 1815 of the FY 2008 National Defense Authorization Act (P.L. 110-181), these items are necessary for use by the active and reserve components of the Armed Forces for homeland defense missions, domestic emergency responses, and providing military support to civil authorities.</p>		

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 25		P-1 Line Item Number / Title: 9462R70001 / Family Of Engr Combat and Construction Sets
		Item Number / Title [DODIC]: R70110 / HEPPOE

ID Code (A=Service Ready, B=Not Service Ready) : A	MDAP/MAIS Code:
-----------------------------------------------------------	------------------------

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Procurement Quantity (Units in Each)	67	4	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	115.383	4.376	-	-	-	-
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	115.383	4.376	-	-	-	-
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	115.383	4.376	-	-	-	-

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (\$ in Millions)	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Thousands)	1,722.134	1,094.000	-	-	-	-

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
Flyaway Cost																		
Recurring Cost																		
Program Management	-	-	14.363	-	-	0.047	-	-	-	-	-	-	-	-	-	-	-	-
Quality Assurance	-	-	3.984	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Engineering	-	-	8.933	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
System Fielding Support	-	-	9.857	-	-	0.242	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Recurring Cost</i>	-	-	<i>37.137</i>	-	-	<i>0.289</i>	-	-	-	-	-	-	-	-	-	-	-	-
Non Recurring Cost																		
Hydrologic Survey Vessels	-	-	-	-	-	2.968	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Non Recurring Cost</i>	-	-	-	-	-	<i>2.968</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Flyaway Cost</i>	-	-	<i>37.137</i>	-	-	<i>3.257</i>	-	-	-	-	-	-	-	-	-	-	-	-
Hardware Cost																		
Recurring Cost																		
HEPPOE ^(†)	162.000	483	78.246	223.800	5	1.119	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Recurring Cost</i>	-	-	<i>78.246</i>	-	-	<i>1.119</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Hardware Cost</i>	-	-	<i>78.246</i>	-	-	<i>1.119</i>	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost	1,722.134	67	115.383	1,094.000	4	4.376	-	-	-	-	-	-	-	-	-	-	-	-

Remarks:

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 25	P-1 Line Item Number / Title: 9462R70001 / Family Of Engr Combat and Construction Sets	Item Number / Title [DODIC]: R70110 / HEPPOE
----------------------------------------------------------------------------------	--------------------------------------------------------------------------------------------------	--------------------------------------------------------

ID Code (A=Service Ready, B=Not Service Ready) : A **MDAP/MAIS Code:**

FY19 funding in the amount of \$4.0M supports the Hydrological Survey Kit for the United States Army Corps of Engineers (USACE), and was not executed by PEO CS&CSS Product Manager Sets, Kits, Outfits, & Tools (SKOT). Funding was decremented by \$1.032 during Midyear Review.

FY19 P40 Resource Summary and Secondary Distribution program dollars are inaccurate. P5 should reflect \$1.119 of hardware cost with a quantity of 5 and Government Management at \$255K.

FY19 Unit cost is \$222K (4), \$230K (1)

Prior year P40 Resource Summary and Secondary Distribution reflect erroneous quantities. Quantities should reflect 483.

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Army	Quantity	4	-	-	-	-
	Total Obligation Authority	4.376	-	-	-	-
Total: Secondary Distribution	Quantity	4	-	-	-	-
	Total Obligation Authority	4.376	-	-	-	-

(t) indicates the presence of a P-5a

UNCLASSIFIED

Exhibit P-5a, Procurement History and Planning: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 25	P-1 Line Item Number / Title: 9462R70001 / Family Of Engr Combat and Construction Sets	Item Number / Title [DODIC]: R70110 / HEPPOE
----------------------------------------------------------------------------------	--------------------------------------------------------------------------------------------------	--------------------------------------------------------

Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty <i>(Each)</i>	Unit Cost <i>(\$ K)</i>	Specs Avail Now?	Date Revision Available	RFP Issue Date
HEPPOE		2019	Kipper / Gainsville GA	SS / FFP	TACOM, Warren, MI	Oct 2018	Dec 2018	4	222.250	Y		Dec 2013
HEPPOE		2019	kipper 2 / Gainsville, GA	SS / FFP	TACOM, Warren, MI	Nov 2019	Mar 2020	1	230.180	Y		Jun 2019

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 25	P-1 Line Item Number / Title: 9462R70001 / Family Of Engr Combat and Construction Sets	Item Number / Title [DODIC]: R70120 / URBAN OPERATIONS, PLATOON SET

ID Code (A=Service Ready, B=Not Service Ready) : A	MDAP/MAIS Code:
-----------------------------------------------------------	------------------------

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Procurement Quantity (Units in Each)	77	24	12	27	-	27
Gross/Weapon System Cost (\$ in Millions)	64.531	5.493	2.043	4.275	-	4.275
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	64.531	5.493	2.043	4.275	-	4.275
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	64.531	5.493	2.043	4.275	-	4.275

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (\$ in Millions)	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Thousands)	838.065	228.875	170.250	158.333	-	158.333

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
Flyaway Cost																		
Recurring Cost																		
Program Management	-	-	6.569	-	-	0.719	-	-	0.260	-	-	0.216	-	-	-	-	-	0.216
Quality Assurance Support	-	-	0.646	-	-	0.250	-	-	-	-	-	-	-	-	-	-	-	-
Engineering Support	-	-	11.705	-	-	0.300	-	-	0.050	-	-	0.051	-	-	-	-	-	0.051
TPF Fielding Support	-	-	2.228	-	-	0.500	-	-	0.092	-	-	0.217	-	-	-	-	-	0.217
Log Support	-	-	-	-	-	0.300	-	-	0.061	-	-	0.174	-	-	-	-	-	0.174
<i>Subtotal: Recurring Cost</i>	-	-	21.148	-	-	2.069	-	-	0.463	-	-	0.658	-	-	-	-	-	0.658
<i>Subtotal: Flyaway Cost</i>	-	-	21.148	-	-	2.069	-	-	0.463	-	-	0.658	-	-	-	-	-	0.658
Hardware Cost																		
Recurring Cost																		
Urban Ops Platoon ^(†)	69.413	625	43.383	131.692	26	3.424	131.667	12	1.580	133.963	27	3.617	-	-	-	133.963	27	3.617
<i>Subtotal: Recurring Cost</i>	-	-	43.383	-	-	3.424	-	-	1.580	-	-	3.617	-	-	-	-	-	3.617
<i>Subtotal: Hardware Cost</i>	-	-	43.383	-	-	3.424	-	-	1.580	-	-	3.617	-	-	-	-	-	3.617
Gross/Weapon System Cost	838.065	77	64.531	228.875	24	5.493	170.250	12	2.043	158.333	27	4.275	-	-	-	158.333	27	4.275

Remarks:

FY21 P40 Secondary Distribution reflects inaccurate COMPO breakout. COMPO breakout is 13 COMPO 1 and 14 COMPO 2.

FY20 P40 Secondary Distribution reflects inaccurate COMPO breakout. COMPO breakout is 6 COMPO 1 and 6 COMPO 2.

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 25	P-1 Line Item Number / Title: 9462R70001 / Family Of Engr Combat and Construction Sets	Item Number / Title [DODIC]: R70120 / URBAN OPERATIONS, PLATOON SET

ID Code (A=Service Ready, B=Not Service Ready) : A	MDAP/MAIS Code:
-----------------------------------------------------------	------------------------

FY19 P40 Resource Summary and Secondary Distribution reflect inaccurate dollars and quantities and P5 reflects inaccurate dollars. Hardware should reflect \$3.424 and Management Support of \$.353. Quantities should reflect 26 and COMPO breakout is 13 COMPO 1 and 13 COMPO 2.

Prior year P40 reflects erroneous quantities. Quantities should reflect 651.

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Army	Quantity	12	6	-	-	-
	Total Obligation Authority	3.362	0.978	-	-	-
ANG	Quantity	12	6	27	-	27
	Total Obligation Authority	2.131	1.065	4.275	-	4.275
Total:	Quantity	24	12	27	-	27
Secondary Distribution	Total Obligation Authority	5.493	2.043	4.275	-	4.275

(t) indicates the presence of a P-5a

UNCLASSIFIED

Exhibit P-5a, Procurement History and Planning: PB 2021 Army								Date: February 2020				
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 25			P-1 Line Item Number / Title: 9462R70001 / Family Of Engr Combat and Construction Sets					Item Number / Title [DODIC]: R70120 / URBAN OPERATIONS, PLATOON SET				
Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty (Each)	Unit Cost (\$ K)	Specs Avail Now?	Date Revision Available	RFP Issue Date
Urban Ops Platoon		2019	BEYOND VISION / Milwaukee, WI	SS / FFP	TACOM Warren, MI	Apr 2019	Aug 2019	26	131.692	Y		Jun 2018
Urban Ops Platoon		2020	BEYOND VISION / Milwaukee, WI	SS / FFP	TACOM Warren, MI	Jan 2020	Jun 2020	12	131.667	Y		Jun 2018
Urban Ops Platoon		2021	BEYOND VISION / Milwaukee, WI	SS / FFP	TACOM Warren, MI	Jan 2021	Jun 2021	27	133.963	Y		Jun 2018

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army													Date: February 2020								
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 25						P-1 Line Item Number / Title: 9462R70001 / Family Of Engr Combat and Construction Sets						Item Number / Title [DODIC]: R70130 / URBAN OPERATIONS, SQUAD SET									
ID Code (A=Service Ready, B=Not Service Ready) : A									MDAP/MAIS Code:												
Resource Summary				Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
Procurement Quantity (Units in Each)				126			44			40			54			-			54		
Gross/Weapon System Cost (\$ in Millions)				61.650			1.368			3.299			4.074			-			4.074		
Less PY Advance Procurement (\$ in Millions)				-			-			-			-			-			-		
Net Procurement (P-1) (\$ in Millions)				61.650			1.368			3.299			4.074			-			4.074		
Plus CY Advance Procurement (\$ in Millions)				-			-			-			-			-			-		
Total Obligation Authority (\$ in Millions)				61.650			1.368			3.299			4.074			-			4.074		
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>																					
Initial Spares (\$ in Millions)				-			-			-			-			-			-		
Gross/Weapon System Unit Cost (\$ in Thousands)				489.286			31.091			82.475			75.444			-			75.444		
Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.																					
Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total					
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)			
Flyaway Cost																					
Recurring Cost																					
Program Management	-	-	0.421	-	-	-	-	-	0.114	-	-	0.146	-	-	-	-	-	0.146			
Engineering Support	-	-	-	-	-	0.043	-	-	0.100	-	-	0.102	-	-	-	-	-	0.102			
Quality Assurance Support	-	-	0.500	-	-	-	-	-	0.048	-	-	0.049	-	-	-	-	-	0.049			
TPF Fielding Support	-	-	0.500	-	-	0.050	-	-	0.150	-	-	0.167	-	-	-	-	-	0.167			
Log Support	-	-	-	-	-	0.050	-	-	0.136	-	-	0.174	-	-	-	-	-	0.174			
<i>Subtotal: Recurring Cost</i>	-	-	1.421	-	-	0.143	-	-	0.548	-	-	0.638	-	-	-	-	-	0.638			
<i>Subtotal: Flyaway Cost</i>	-	-	1.421	-	-	0.143	-	-	0.548	-	-	0.638	-	-	-	-	-	0.638			
Hardware Cost																					
Recurring Cost																					
Urban Ops Squad Hardware ⁽¹⁾	52.192	1,154	60.229	18.561	66	1.225	62.523	44	2.751	63.630	54	3.436	-	-	-	63.630	54	3.436			
<i>Subtotal: Recurring Cost</i>	-	-	60.229	-	-	1.225	-	-	2.751	-	-	3.436	-	-	-	-	-	3.436			
<i>Subtotal: Hardware Cost</i>	-	-	60.229	-	-	1.225	-	-	2.751	-	-	3.436	-	-	-	-	-	3.436			
Gross/Weapon System Cost	489.286	126	61.650	31.091	44	1.368	82.475	40	3.299	75.444	54	4.074	-	-	-	75.444	54	4.074			
Remarks: FY21 P40 Secondary Distribution reflect inaccurate COMPO split. COMPO breakout is 27 COMPO 1 and 27 COMPO 2.																					

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 25	P-1 Line Item Number / Title: 9462R70001 / Family Of Engr Combat and Construction Sets	Item Number / Title [DODIC]: R70130 / URBAN OPERATIONS, SQUAD SET

ID Code (A=Service Ready, B=Not Service Ready) : A	MDAP/MAIS Code:
-----------------------------------------------------------	------------------------

FY20 P40 Resource Summary and Secondary Distribution reflect erroneous quantities. Secondary Distribution reflect erroneous COMPO breakout. Quantities should reflect 44 and COMPO breakout is 19 COMPO 1 and 25 COMPO 2.

FY19 P40 Resource Summary and Secondary Distribution reflect inaccurate dollars and erroneous quantities. Secondary Distribution reflect erroneous COMPO breakout. Dollars should be \$4.867, quantities should reflect 66. COMPO breakout is 33 COMPO 1 and 33 COMPO 2.

Prior year P40 reflects erroneous quantities. Quantities should reflect 1,154.

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Army	Quantity	5	15	-	-	-
	Total Obligation Authority	0.326	1.390	0.256	-	0.256
ANG	Quantity	39	25	54	-	54
	Total Obligation Authority	1.042	1.909	3.818	-	3.818
Total:	Quantity	44	40	54	-	54
Secondary Distribution	Total Obligation Authority	1.368	3.299	4.074	-	4.074

(t) indicates the presence of a P-5a

UNCLASSIFIED

Exhibit P-5a, Procurement History and Planning: PB 2021 Army								Date: February 2020				
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 25			P-1 Line Item Number / Title: 9462R70001 / Family Of Engr Combat and Construction Sets					Item Number / Title [DODIC]: R70130 / URBAN OPERATIONS, SQUAD SET				
Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty (Each)	Unit Cost (\$ K)	Specs Avail Now?	Date Revision Available	RFP Issue Date
Urban Ops Squad Hardware		2019	Beyond Vision / Milwaukee, WI	SS / FFP	TACOM, Warren, MI	Apr 2019	Aug 2019	66	18.561	Y		Mar 2018
Urban Ops Squad Hardware		2020	Beyond Vision / Milwaukee, WI	SS / FFP	TACOM, Warren, MI	Jan 2020	Jun 2020	44	62.523	Y		Mar 2018
Urban Ops Squad Hardware		2021	Beyond Vision / Milwaukee, WI	SS / FFP	TACOM Warren, MI	Jan 2021	Jun 2021	54	63.630	Y		Mar 2018

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army													Date: February 2020								
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 25						P-1 Line Item Number / Title: 9462R70001 / Family Of Engr Combat and Construction Sets						Item Number / Title [DODIC]: R70170 / Vertical Skills Engr Const Kit: Type VI									
ID Code (A=Service Ready, B=Not Service Ready) : A									MDAP/MAIS Code:												
Resource Summary				Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
Procurement Quantity (Units in Each)				84			10			97			41			-			41		
Gross/Weapon System Cost (\$ in Millions)				2.404			0.434			2.399			1.712			-			1.712		
Less PY Advance Procurement (\$ in Millions)				-			-			-			-			-			-		
Net Procurement (P-1) (\$ in Millions)				2.404			0.434			2.399			1.712			-			1.712		
Plus CY Advance Procurement (\$ in Millions)				-			-			-			-			-			-		
Total Obligation Authority (\$ in Millions)				2.404			0.434			2.399			1.712			-			1.712		
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>																					
Initial Spares (\$ in Millions)				-			-			-			-			-			-		
Gross/Weapon System Unit Cost (\$ in Thousands)				28.619			43.400			24.732			41.756			-			41.756		
Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.																					
Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total					
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)			
Flyaway Cost																					
Recurring Cost																					
Program Management	-	-	0.254	-	-	0.056	-	-	0.087	-	-	0.061	-	-	-	-	-	0.061			
Quality Assurance	-	-	0.028	-	-	0.008	-	-	0.005	-	-	0.005	-	-	-	-	-	0.005			
Engineering	-	-	0.045	-	-	0.010	-	-	0.025	-	-	0.026	-	-	-	-	-	0.026			
Log Support	-	-	-	-	-	-	-	-	0.034	-	-	0.046	-	-	-	-	-	0.046			
TPF	-	-	0.102	-	-	0.025	-	-	0.054	-	-	0.072	-	-	-	-	-	0.072			
Transportation	-	-	0.050	-	-	0.035	-	-	0.158	-	-	0.194	-	-	-	-	-	0.194			
ECP	-	-	-	-	-	-	-	-	-	-	-	0.225	-	-	-	-	-	0.225			
<i>Subtotal: Recurring Cost</i>	-	-	<i>0.479</i>	-	-	<i>0.134</i>	-	-	<i>0.363</i>	-	-	<i>0.629</i>	-	-	-	-	-	<i>0.629</i>			
<i>Subtotal: Flyaway Cost</i>	-	-	0.479	-	-	0.134	-	-	0.363	-	-	0.629	-	-	-	-	-	0.629			
Hardware Cost																					
Recurring Cost																					
Hardware ^(†)	25.000	77	1.925	25.000	12	0.300	25.772	79	2.036	26.415	41	1.083	-	-	-	26.415	41	1.083			
<i>Subtotal: Recurring Cost</i>	-	-	<i>1.925</i>	-	-	<i>0.300</i>	-	-	<i>2.036</i>	-	-	<i>1.083</i>	-	-	-	-	-	<i>1.083</i>			
<i>Subtotal: Hardware Cost</i>	-	-	1.925	-	-	0.300	-	-	2.036	-	-	1.083	-	-	-	-	-	1.083			
Gross/Weapon System Cost	28.619	84	2.404	43.400	10	0.434	24.732	97	2.399	41.756	41	1.712	-	-	-	41.756	41	1.712			
Remarks: FY21 Gross/Weapon System Unit Cost is higher than FY20 due to procuring less quantities (FY20 quantity of 79 vs. FY21 quantity of 41) and less dollar value.																					

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 25	P-1 Line Item Number / Title: 9462R70001 / Family Of Engr Combat and Construction Sets	Item Number / Title [DODIC]: R70170 / Vertical Skills Engr Const Kit: Type VI
ID Code (A=Service Ready, B=Not Service Ready) : A		MDAP/MAIS Code:

FY21 Secondary Distribution reflect erroneous COMPO breakout. COMPO breakout is 41 COMPO 2.

FY20 Gross/Weapon System Unit Cost is inaccurate due to erroneous quantities. Gross/Weapon System Unit Cost should be \$30,367.

FY20 P40 Resource Summary and Secondary Distribution reflect erroneous quantities. Secondary Distribution reflect erroneous COMPO breakout. Quantities should reflect 79 and COMPO should reflect 35 COMPO 2 and 44 COMPO 3.

FY19 P40 Resource Summary and Secondary Distribution reflect erroneous quantities. Secondary Distribution reflect erroneous COMPO breakout. Quantities should reflect 12 and COMPO breakout is 12 COMPO 1.

Prior year P40 reflects erroneous quantities. Quantities should reflect 77.

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Army	Quantity	10	40	-	-	-
	Total Obligation Authority	0.434	0.902	-	-	-
ANG	Quantity	-	37	41	-	41
	Total Obligation Authority	-	0.972	1.712	-	1.712
AR	Quantity	-	20	-	-	-
	Total Obligation Authority	-	0.525	-	-	-
Total: Secondary Distribution	Quantity	10	97	41	-	41
	Total Obligation Authority	0.434	2.399	1.712	-	1.712

(t) indicates the presence of a P-5a

UNCLASSIFIED

Exhibit P-5a, Procurement History and Planning: PB 2021 Army							Date: February 2020					
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 25			P-1 Line Item Number / Title: 9462R70001 / Family Of Engr Combat and Construction Sets				Item Number / Title [DODIC]: R70170 / Vertical Skills Engr Const Kit: Type VI					

Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty <i>(Each)</i>	Unit Cost <i>(\$ K)</i>	Specs Avail Now?	Date Revision Available	RFP Issue Date
Hardware		2019	I.B. Milwaukee - West Allis, WI 53214 / Milwaukee, WI	SS / FFP	Warren, MI	Mar 2019	Jun 2019	12	25.000	Y		Jul 2016
Hardware		2020	I.B. Milwaukee - West Allis, WI 53214 / Milwaukee, WI	SS / FFP	Warren, MI	Jan 2020	May 2020	79	25.772	Y		Jul 2016
Hardware		2021	I.B. Milwaukee - West Allis, WI 53214 / Milwaukee, WI	SS / FFP	Warren, MI	Jan 2021	May 2021	41	26.415	Y		Jul 2016

Remarks:
Actual unit cost of the VSECK TYPE VI in FY20 is \$26K.

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 25	P-1 Line Item Number / Title: 9462R70001 / Family Of Engr Combat and Construction Sets	Item Number / Title [DODIC]: R70180 / Vertical Skills Engr Const Kit: Type V

ID Code (A=Service Ready, B=Not Service Ready) : A				MDAP/MAIS Code:				
Resource Summary			Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Procurement Quantity (Units in Each)			23	4	24	87	-	87
Gross/Weapon System Cost (\$ in Millions)			0.947	0.225	0.959	3.675	-	3.675
Less PY Advance Procurement (\$ in Millions)			-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)			0.947	0.225	0.959	3.675	-	3.675
Plus CY Advance Procurement (\$ in Millions)			-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)			0.947	0.225	0.959	3.675	-	3.675
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>								
Initial Spares (\$ in Millions)			-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Thousands)			41.174	56.250	39.958	42.241	-	42.241

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
Flyaway Cost																		
Recurring Cost																		
Quality Assurance	-	-	0.197	-	-	0.007	-	-	0.005	-	-	0.005	-	-	-	-	-	0.005
Engineering	-	-	0.005	-	-	0.010	-	-	0.025	-	-	0.026	-	-	-	-	-	0.026
Program Support	-	-	-	-	-	-	-	-	0.030	-	-	0.133	-	-	-	-	-	0.133
Log Support	-	-	-	-	-	0.005	-	-	0.034	-	-	0.046	-	-	-	-	-	0.046
TPF	-	-	0.010	-	-	0.025	-	-	0.054	-	-	0.072	-	-	-	-	-	0.072
Transportation	-	-	0.063	-	-	0.012	-	-	0.066	-	-	0.372	-	-	-	-	-	0.372
<i>Subtotal: Recurring Cost</i>	-	-	0.275	-	-	0.059	-	-	0.214	-	-	0.654	-	-	-	-	-	0.654
<i>Subtotal: Flyaway Cost</i>	-	-	0.275	-	-	0.059	-	-	0.214	-	-	0.654	-	-	-	-	-	0.654
Hardware Cost																		
Recurring Cost																		
VSECK Type V ^(†)	32.000	21	0.672	33.200	5	0.166	33.864	22	0.745	34.724	87	3.021	-	-	-	34.724	87	3.021
<i>Subtotal: Recurring Cost</i>	-	-	0.672	-	-	0.166	-	-	0.745	-	-	3.021	-	-	-	-	-	3.021
<i>Subtotal: Hardware Cost</i>	-	-	0.672	-	-	0.166	-	-	0.745	-	-	3.021	-	-	-	-	-	3.021
Gross/Weapon System Cost	41.174	23	0.947	56.250	4	0.225	39.958	24	0.959	42.241	87	3.675	-	-	-	42.241	87	3.675

Remarks:

FY21 P40 Secondary Distribution reflect erroneous COMPO breakout. COMPO breakout is 18 COMPO 2 and 69 COMPO 3.

FY20 Gross/Weapon System Unit Cost is inaccurate due to erroneous quantities. Gross/Weapon System Unit Cost should be \$43,591

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 25	P-1 Line Item Number / Title: 9462R70001 / Family Of Engr Combat and Construction Sets	Item Number / Title [DODIC]: R70180 / Vertical Skills Engr Const Kit: Type V

ID Code (A=Service Ready, B=Not Service Ready) : A	MDAP/MAIS Code:
-----------------------------------------------------------	------------------------

FY20 P40 Resource Summary and Secondary Distribution reflect erroneous quantities. Secondary Distribution reflect erroneous COMPO breakout. Quantities should reflect 22. 22 COMPO 1.

FY19 P40 Resource Summary and Secondary Distribution reflect erroneous quantities. Secondary Distribution reflect erroneous COMPO breakout. Quantities should reflect 5 and COMPO breakout is 2 COMPO 1 and 3 COMPO 3.

Prior year P40 reflects erroneous quantities. Quantities should reflect 21.

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Army	Quantity	4	16	18	-	18
	Total Obligation Authority	0.225	0.757	0.760	-	0.760
ANG	Quantity	-	-	69	-	69
	Total Obligation Authority	-	-	2.915	-	2.915
AR	Quantity	-	8	-	-	-
	Total Obligation Authority	-	0.202	-	-	-
Total: Secondary Distribution	Quantity	4	24	87	-	87
	Total Obligation Authority	0.225	0.959	3.675	-	3.675

(t) indicates the presence of a P-5a

UNCLASSIFIED

Exhibit P-5a, Procurement History and Planning: PB 2021 Army							Date: February 2020					
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 25			P-1 Line Item Number / Title: 9462R70001 / Family Of Engr Combat and Construction Sets				Item Number / Title [DODIC]: R70180 / Vertical Skills Engr Const Kit: Type V					

Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty <i>(Each)</i>	Unit Cost <i>(\$ K)</i>	Specs Avail Now?	Date Revision Available	RFP Issue Date
VSECK Type V		2019	I. B. Milwaukee / West Allis, WI 53214	SS / FFP	TACOM, Warren, MI	Mar 2019	Jun 2019	5	33.200	Y		Jul 2016
VSECK Type V		2020	I. B. Milwaukee / West Allis, WI 53214	SS / FFP	TACOM, Warren, MI	Jan 2020	May 2020	22	33.864	Y		Jul 2016
VSECK Type V		2021	I. B. Milwaukee / West Allis, WI 53214	SS / FFP	TACOM, Warren, MI	Jan 2021	May 2021	87	34.724	Y		Jul 2016

Remarks:
Actual unit cost for VSECK TYPE V in FY20 is \$34K.

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 25		P-1 Line Item Number / Title: 9462R70001 / Family Of Engr Combat and Construction Sets
		Item Number / Title [DODIC]: R70185 / Vertical Skills Engr Const Kit: Type IV

ID Code (A=Service Ready, B=Not Service Ready) : A	MDAP/MAIS Code:
-----------------------------------------------------------	------------------------

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Procurement Quantity (Units in Each)	23	4	33	82	-	82
Gross/Weapon System Cost (\$ in Millions)	0.575	0.278	0.809	1.964	-	1.964
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	0.575	0.278	0.809	1.964	-	1.964
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	0.575	0.278	0.809	1.964	-	1.964

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (\$ in Millions)	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Thousands)	25.000	69.500	24.515	23.951	-	23.951

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
Flyaway Cost																		
Recurring Cost																		
Program Management	-	-	0.079	-	-	0.010	-	-	0.030	-	-	0.072	-	-	-	-	-	0.072
Quality Assurance	-	-	0.006	-	-	0.008	-	-	0.005	-	-	0.005	-	-	-	-	-	0.005
Engineering	-	-	0.010	-	-	0.010	-	-	0.025	-	-	0.026	-	-	-	-	-	0.026
Log Support	-	-	-	-	-	-	-	-	0.034	-	-	0.046	-	-	-	-	-	0.046
TPF	-	-	0.018	-	-	0.061	-	-	0.054	-	-	0.072	-	-	-	-	-	0.072
TRANSPORTATION	-	-	0.044	-	-	0.018	-	-	0.058	-	-	0.108	-	-	-	-	-	0.108
<i>Subtotal: Recurring Cost</i>	-	-	<i>0.157</i>	-	-	<i>0.107</i>	-	-	<i>0.206</i>	-	-	<i>0.329</i>	-	-	-	-	-	<i>0.329</i>
<i>Subtotal: Flyaway Cost</i>	-	-	<i>0.157</i>	-	-	<i>0.107</i>	-	-	<i>0.206</i>	-	-	<i>0.329</i>	-	-	-	-	-	<i>0.329</i>
Hardware Cost																		
Recurring Cost																		
VSECK TYPE IV ⁽¹⁾	19.000	22	0.418	19.000	9	0.171	19.452	31	0.603	19.939	82	1.635	-	-	-	19.939	82	1.635
<i>Subtotal: Recurring Cost</i>	-	-	<i>0.418</i>	-	-	<i>0.171</i>	-	-	<i>0.603</i>	-	-	<i>1.635</i>	-	-	-	-	-	<i>1.635</i>
<i>Subtotal: Hardware Cost</i>	-	-	<i>0.418</i>	-	-	<i>0.171</i>	-	-	<i>0.603</i>	-	-	<i>1.635</i>	-	-	-	-	-	<i>1.635</i>
Gross/Weapon System Cost	25.000	23	0.575	69.500	4	0.278	24.515	33	0.809	23.951	82	1.964	-	-	-	23.951	82	1.964

Remarks:
 FY21 P40 Secondary Distribution reflects erroneous COMPO breakout. Should reflect 17 COMPO 1, 26 Compo 2, 25 COMPO 3, and 14 COMPO 6.

 FY20 Gross/Weapon System Unit Cost is inaccurate due to erroneous quantities. Gross/Weapon System Unit Cost should be \$26,097 due to procuring less quantities.

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 25	P-1 Line Item Number / Title: 9462R70001 / Family Of Engr Combat and Construction Sets	Item Number / Title [DODIC]: R70185 / Vertical Skills Engr Const Kit: Type IV

ID Code (A=Service Ready, B=Not Service Ready) : A	MDAP/MAIS Code:
-----------------------------------------------------------	------------------------

FY20 P40 Resource Summary and Secondary Distribution reflect erroneous quantities. Secondary Distribution reflect erroneous COMPO breakout. Quantities should reflect 31 and COMPO 31 COMPO 1.

FY19 P40 Resource Summary and Secondary Distribution reflect erroneous quantities. Secondary Distribution reflect erroneous COMPO breakout. Quantities should reflect 9 and COMPO breakout is 6 COMPO 1 and 3 COMPO 2.

Prior year P40 reflects erroneous quantities. Quantities should reflect 22.

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Army	Quantity	4	21	31	-	31
	Total Obligation Authority	0.278	0.692	0.744	-	0.744
ANG	Quantity	-	-	26	-	26
	Total Obligation Authority	-	-	0.622	-	0.622
AR	Quantity	-	12	25	-	25
	Total Obligation Authority	-	0.117	0.598	-	0.598
Total: Secondary Distribution	Quantity	4	33	82	-	82
	Total Obligation Authority	0.278	0.809	1.964	-	1.964

(t) indicates the presence of a P-5a

UNCLASSIFIED

Exhibit P-5a, Procurement History and Planning: PB 2021 Army							Date: February 2020				
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 25			P-1 Line Item Number / Title: 9462R70001 / Family Of Engr Combat and Construction Sets				Item Number / Title [DODIC]: R70185 / Vertical Skills Engr Const Kit: Type IV				

Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty <i>(Each)</i>	Unit Cost <i>(\$ K)</i>	Specs Avail Now?	Date Revision Available	RFP Issue Date
VSECK TYPE IV		2019	I. B. Milwaukee / West Allis, WI 53214	SS / FFP	TACOM, Warren, MI	Mar 2019	Jun 2019	9	19.000	Y		Jul 2016
VSECK TYPE IV		2020	I. B. Milwaukee / West Allis, WI 53214	SS / FFP	TACOM, Warren, MI	Jan 2020	May 2020	31	19.452	Y		Jul 2016
VSECK TYPE IV		2021	I. B. Milwaukee / West Allis, WI 53214	SS / FFP	TACOM, Warren, MI	Jan 2021	May 2021	82	19.939	Y		Jul 2016

Remarks:
Actual unit cost for VSECK TYPE IV in FY20 is \$20K.

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 25	P-1 Line Item Number / Title: 9462R70001 / Family Of Engr Combat and Construction Sets	Item Number / Title [DODIC]: R70195 / Vertical Skills Engr Const Kit: Type III

ID Code (A=Service Ready, B=Not Service Ready) : A	MDAP/MAIS Code:
-----------------------------------------------------------	------------------------

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Procurement Quantity (Units in Each)	26	5	15	-	-	-
Gross/Weapon System Cost (\$ in Millions)	0.768	0.216	0.505	0.473	-	0.473
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	0.768	0.216	0.505	0.473	-	0.473
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	0.768	0.216	0.505	0.473	-	0.473

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (\$ in Millions)	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Thousands)	29.538	43.200	33.667	-	-	-

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
Flyaway Cost																		
Recurring Cost																		
Program Management	-	-	0.135	-	-	-	-	-	0.027	-	-	-	-	-	-	-	-	-
Quality Assurance	-	-	0.002	-	-	0.008	-	-	0.005	-	-	-	-	-	-	-	-	-
Engineering	-	-	0.003	-	-	0.010	-	-	0.025	-	-	-	-	-	-	-	-	-
Log Support	-	-	-	-	-	-	-	-	0.034	-	-	-	-	-	-	-	-	-
TPF	-	-	0.004	-	-	0.036	-	-	0.054	-	-	0.473	-	-	-	-	-	0.473
Transportation	-	-	0.048	-	-	0.012	-	-	0.028	-	-	-	-	-	-	-	-	-
<i>Subtotal: Recurring Cost</i>	-	-	0.192	-	-	0.066	-	-	0.173	-	-	0.473	-	-	-	-	-	0.473
<i>Subtotal: Flyaway Cost</i>	-	-	0.192	-	-	0.066	-	-	0.173	-	-	0.473	-	-	-	-	-	0.473
Hardware Cost																		
Recurring Cost																		
VSECK Type III ^(†)	24.000	24	0.576	25.000	6	0.150	25.538	13	0.332	-	-	-	-	-	-	-	-	-
<i>Subtotal: Recurring Cost</i>	-	-	0.576	-	-	0.150	-	-	0.332	-	-	-	-	-	-	-	-	-
<i>Subtotal: Hardware Cost</i>	-	-	0.576	-	-	0.150	-	-	0.332	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost	29.538	26	0.768	43.200	5	0.216	33.667	15	0.505	-	-	0.473	-	-	-	-	-	0.473

Remarks:

FY21 Funds will be used toward fielding of hardware in outyears.

FY20 Gross/Weapon System Unit Cost is inaccurate due to erroneous quantities. Gross/Weapon System Unit Cost should be \$38,846.

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 25	P-1 Line Item Number / Title: 9462R70001 / Family Of Engr Combat and Construction Sets	Item Number / Title [DODIC]: R70195 / Vertical Skills Engr Const Kit: Type III

ID Code (A=Service Ready, B=Not Service Ready) : A	MDAP/MAIS Code:
-----------------------------------------------------------	------------------------

FY20 P40 Resource Summary and Secondary Distribution reflect erroneous quantities. Secondary Distribution reflect erroneous COMPO breakout. Quantities should reflect 13 and COMPO breakout is 13 COMPO 3.

FY19 P40 Resource Summary and Secondary Distribution reflect erroneous quantities. Secondary Distribution reflect erroneous COMPO breakout. Quantities should reflect 6 and COMPO breakout is 6 COMPO 1.

Prior year P40 Resource Summary reflects erroneous quantities. Quantities should reflect 24.

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Army	Quantity	5	-	-	-	-
	Total Obligation Authority	0.216	0.203	0.473	-	0.473
ANG	Quantity	-	7	-	-	-
	Total Obligation Authority	-	0.141	-	-	-
AR	Quantity	-	8	-	-	-
	Total Obligation Authority	-	0.161	-	-	-
Total: Secondary Distribution	Quantity	5	15	-	-	-
	Total Obligation Authority	0.216	0.505	0.473	-	0.473

(†) indicates the presence of a P-5a

UNCLASSIFIED

Exhibit P-5a, Procurement History and Planning: PB 2021 Army							Date: February 2020				
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 25			P-1 Line Item Number / Title: 9462R70001 / Family Of Engr Combat and Construction Sets				Item Number / Title [DODIC]: R70195 / Vertical Skills Engr Const Kit: Type III				

Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty <i>(Each)</i>	Unit Cost <i>(\$ K)</i>	Specs Avail Now?	Date Revision Available	RFP Issue Date
VSECK Type III		2019	I. B. Milwaukee / West Allis, WI 53214	SS / FFP	TACOM, Warren, MI	Mar 2019	Jun 2019	6	25.000	Y		Jul 2016
VSECK Type III		2020	I. B. Milwaukee / West Allis, WI 53214	SS / FFP	TACOM, Warren, MI	Jan 2020	May 2020	13	25.538	Y		Jul 2016
VSECK Type III		2021	I. B. Milwaukee / West Allis, WI 53214	SS / FFP	TACOM, Warren, MI	Jan 2021	May 2021	0	0.000	Y		Jul 2016

Remarks:
Actual unit cost for VSECK TYPE III in FY20 is \$25K.

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 25		P-1 Line Item Number / Title: 9462R70001 / Family Of Engr Combat and Construction Sets
		Item Number / Title [DODIC]: R70196 / Vertical Skills Engr Const Kit: Type II

ID Code (A=Service Ready, B=Not Service Ready) : A	MDAP/MAIS Code:
-----------------------------------------------------------	------------------------

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Procurement Quantity (Units in Each)	28	10	38	254	-	254
Gross/Weapon System Cost (\$ in Millions)	0.627	0.381	0.841	5.232	-	5.232
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	0.627	0.381	0.841	5.232	-	5.232
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	0.627	0.381	0.841	5.232	-	5.232

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (\$ in Millions)	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Thousands)	22.393	38.100	22.132	20.598	-	20.598

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
Flyaway Cost																		
Recurring Cost																		
Program Management	-	-	0.131	-	-	0.018	-	-	0.040	-	-	0.159	-	-	-	-	-	0.159
Quality Assurance	-	-	0.005	-	-	0.008	-	-	0.005	-	-	0.005	-	-	-	-	-	0.005
Engineering	-	-	0.002	-	-	0.010	-	-	0.025	-	-	0.026	-	-	-	-	-	0.026
Log Support	-	-	-	-	-	-	-	-	0.034	-	-	0.046	-	-	-	-	-	0.046
TPF	-	-	-	-	-	0.015	-	-	0.054	-	-	0.072	-	-	-	-	-	0.072
Transportation	-	-	0.047	-	-	0.024	-	-	0.061	-	-	0.162	-	-	-	-	-	0.162
<i>Subtotal: Recurring Cost</i>	-	-	0.185	-	-	0.075	-	-	0.219	-	-	0.470	-	-	-	-	-	0.470
<i>Subtotal: Flyaway Cost</i>	-	-	0.185	-	-	0.075	-	-	0.219	-	-	0.470	-	-	-	-	-	0.470
Hardware Cost																		
Recurring Cost																		
VSECK TYPE II ^(†)	8.340	53	0.442	18.000	17	0.306	18.294	34	0.622	18.748	254	4.762	-	-	-	18.748	254	4.762
<i>Subtotal: Recurring Cost</i>	-	-	0.442	-	-	0.306	-	-	0.622	-	-	4.762	-	-	-	-	-	4.762
<i>Subtotal: Hardware Cost</i>	-	-	0.442	-	-	0.306	-	-	0.622	-	-	4.762	-	-	-	-	-	4.762
Gross/Weapon System Cost	22.393	28	0.627	38.100	10	0.381	22.132	38	0.841	20.598	254	5.232	-	-	-	20.598	254	5.232

Remarks:
FY21 P40 Secondary Distribution reflects erroneous COMPO split. COMPO should reflect 31 COMPO 1, 96 COMPO 2, 95 COMPO 3, and 32 COMPO 6.

FY20 Gross/Weapon System Unit Cost is inaccurate due to erroneous quantities. Gross/Weapon System Unit Cost should be \$24,735.

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 25	P-1 Line Item Number / Title: 9462R70001 / Family Of Engr Combat and Construction Sets	Item Number / Title [DODIC]: R70196 / Vertical Skills Engr Const Kit: Type II

ID Code (A=Service Ready, B=Not Service Ready) : A	MDAP/MAIS Code:
-----------------------------------------------------------	------------------------

FY20 P40 Resource Summary and Secondary Distribution reflect erroneous quantities. Secondary Distribution reflect erroneous COMPO breakout. Quantities should reflect 34 and COMPO breakout is 34 COMPO 1.

FY19 P40 Resource Summary and Secondary Distribution reflect erroneous quantities. Secondary Distribution reflect erroneous COMPO breakout. Quantities should reflect 17 and COMPO breakout is 17 COMPO 1. .

Prior year P40 Resource Summary reflects erroneous quantities. Quantities should reflect 53.

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Army	Quantity	10	21	63	-	63
	Total Obligation Authority	0.381	0.633	1.298	-	1.298
ANG	Quantity	-	-	96	-	96
	Total Obligation Authority	-	-	1.977	-	1.977
AR	Quantity	-	17	95	-	95
	Total Obligation Authority	-	0.208	1.957	-	1.957
Total: Secondary Distribution	Quantity	10	38	254	-	254
	Total Obligation Authority	0.381	0.841	5.232	-	5.232

(†) indicates the presence of a P-5a

UNCLASSIFIED

Exhibit P-5a, Procurement History and Planning: PB 2021 Army							Date: February 2020				
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 25			P-1 Line Item Number / Title: 9462R70001 / Family Of Engr Combat and Construction Sets				Item Number / Title [DODIC]: R70196 / Vertical Skills Engr Const Kit: Type II				

Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty <i>(Each)</i>	Unit Cost <i>(\$ K)</i>	Specs Avail Now?	Date Revision Available	RFP Issue Date
VSECK TYPE II		2019	I. B. Milwaukee / West Allis, WI 53214	SS / FFP	TACOM, Warren, MI	Mar 2019	Jun 2019	17	18.000	Y		Jul 2016
VSECK TYPE II		2020	I. B. Milwaukee / West Allis, WI 53214	SS / FFP	TACOM, Warren, MI	Jan 2020	May 2020	34	18.294	Y		Jul 2016
VSECK TYPE II		2021	I. B. Milwaukee / West Allis, WI 53214	SS / FFP	TACOM, Warren, MI	Jan 2021	May 2021	254	18.748	Y		Jul 2016

Remarks:
Actual unit cost for VSECK Type II in FY20 is \$18K.

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 25		P-1 Line Item Number / Title: 9462R70001 / Family Of Engr Combat and Construction Sets
		Item Number / Title [DODIC]: R70198 / Vertical Skills Engr Const Kit: Type I

ID Code (A=Service Ready, B=Not Service Ready) : A	MDAP/MAIS Code:
-----------------------------------------------------------	------------------------

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Procurement Quantity (Units in Each)	41	16	43	146	-	146
Gross/Weapon System Cost (\$ in Millions)	0.461	0.239	0.596	1.919	-	1.919
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	0.461	0.239	0.596	1.919	-	1.919
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	0.461	0.239	0.596	1.919	-	1.919

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (\$ in Millions)	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Thousands)	11.244	14.938	13.860	13.144	-	13.144

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
Flyaway Cost																		
Recurring Cost																		
Program Management	-	-	0.043	-	-	0.002	-	-	0.022	-	-	0.064	-	-	-	-	-	0.064
Quality Assurance	-	-	-	-	-	0.006	-	-	0.005	-	-	0.005	-	-	-	-	-	0.005
Engineering	-	-	-	-	-	0.007	-	-	0.025	-	-	0.026	-	-	-	-	-	0.026
Log Support	-	-	-	-	-	-	-	-	0.034	-	-	0.046	-	-	-	-	-	0.046
TPF	-	-	-	-	-	0.026	-	-	0.054	-	-	0.072	-	-	-	-	-	0.072
Transportation	-	-	0.038	-	-	0.018	-	-	0.041	-	-	0.191	-	-	-	-	-	0.191
<i>Subtotal: Recurring Cost</i>	-	-	<i>0.081</i>	-	-	<i>0.059</i>	-	-	<i>0.181</i>	-	-	<i>0.404</i>	-	-	-	-	-	<i>0.404</i>
<i>Subtotal: Flyaway Cost</i>	-	-	<i>0.081</i>	-	-	<i>0.059</i>	-	-	<i>0.181</i>	-	-	<i>0.404</i>	-	-	-	-	-	<i>0.404</i>
Hardware Cost																		
Recurring Cost																		
VSECK Type I ⁽¹⁾	10.000	38	0.380	10.000	18	0.180	10.122	41	0.415	10.377	146	1.515	-	-	-	10.377	146	1.515
<i>Subtotal: Recurring Cost</i>	-	-	<i>0.380</i>	-	-	<i>0.180</i>	-	-	<i>0.415</i>	-	-	<i>1.515</i>	-	-	-	-	-	<i>1.515</i>
<i>Subtotal: Hardware Cost</i>	-	-	<i>0.380</i>	-	-	<i>0.180</i>	-	-	<i>0.415</i>	-	-	<i>1.515</i>	-	-	-	-	-	<i>1.515</i>
Gross/Weapon System Cost	11.244	41	0.461	14.938	16	0.239	13.860	43	0.596	13.144	146	1.919	-	-	-	13.144	146	1.919

Remarks:

FY21 Secondary Distribution reflect erroneous COMPO breakout. COMPO break is 64 COMPO 2 and 82 COMPO 3.

FY20 Gross/Weapon System Unit Cost is inaccurate due to erroneous quantities. Gross/Weapon System Unit Cost should be \$14,537.

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 25	P-1 Line Item Number / Title: 9462R70001 / Family Of Engr Combat and Construction Sets	Item Number / Title [DODIC]: R70198 / Vertical Skills Engr Const Kit: Type I

ID Code (A=Service Ready, B=Not Service Ready) : A	MDAP/MAIS Code:
-----------------------------------------------------------	------------------------

FY20 P40 Resource Summary and Secondary Distribution reflect erroneous quantities. Secondary Distribution reflect erroneous COMPO breakout. Quantities should reflect 41. COMPO breakout is 23 COMPO 1 and 18 COMPO 2.

FY19 P40 Resource Summary and Secondary Distribution reflect erroneous quantities. Secondary Distribution reflect erroneous COMPO breakout. Quantities should reflect 18. COMPO breakout is 18 COMPO 1.

Prior year P40 Resource Summary and Secondary Distribution reflect erroneous quantities. Quantities should reflect 38.

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Army	Quantity	16	30	-	-	-
	Total Obligation Authority	0.239	0.557	-	-	-
ANG	Quantity	-	-	64	-	64
	Total Obligation Authority	-	-	0.841	-	0.841
AR	Quantity	-	13	82	-	82
	Total Obligation Authority	-	0.039	1.078	-	1.078
Total: Secondary Distribution	Quantity	16	43	146	-	146
	Total Obligation Authority	0.239	0.596	1.919	-	1.919

(†) indicates the presence of a P-5a

UNCLASSIFIED

Exhibit P-5a, Procurement History and Planning: PB 2021 Army							Date: February 2020				
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 25			P-1 Line Item Number / Title: 9462R70001 / Family Of Engr Combat and Construction Sets				Item Number / Title [DODIC]: R70198 / Vertical Skills Engr Const Kit: Type I				

Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty <i>(Each)</i>	Unit Cost <i>(\$ K)</i>	Specs Avail Now?	Date Revision Available	RFP Issue Date
VSECK Type I		2019	I. B. Milwaukee / West Allis, WI 53214	SS / FFP	TACOM, Warren, MI	Mar 2019	Jun 2019	18	10.000	Y		Jul 2016
VSECK Type I		2020	I. B. Milwaukee / West Allis, WI 53214	SS / FFP	TACOM, Warren, MI	Jan 2020	May 2020	41	10.122	Y		Jul 2016
VSECK Type I		2021	I. B. Milwaukee / West Allis, WI 53214	SS / FFP	TACOM, Warren, MI	Jan 2021	May 2021	146	10.377	Y		Jul 2016

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 25: Combat Service Support Equipment	P-1 Line Item Number / Title: 9530ML5301 / Items Less Than \$5M (Eng Spt)
--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-------------------------------------------------------------------------------------

ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
----------------------------------------------------------	-----------------------------------------------	--------------------------------------------

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	20	0	334	5	-	5	5	-	-	-	-	364
Gross/Weapon System Cost (<i>\$ in Millions</i>)	220.651	2.000	4.128	8.014	-	8.014	8.987	-	-	-	-	243.780
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	220.651	2.000	4.128	8.014	-	8.014	8.987	-	-	-	-	243.780
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	220.651	2.000	4.128	8.014	-	8.014	8.987	-	-	-	-	243.780

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Thousands</i>)	11,032.550	-	12.359	1,602.800	-	1,602.800	1,797.400	-	-	-	-	669.725

Description:

Family of Power Utility Kits (FoPUK) provides the necessary equipment required to perform maintenance, repair and testing of high voltage power transmission lines and medium voltage power generation, to include related distribution equipment. The FoPUK supports Gap#7 Air & Missile Defense and the indispensable nature of electrical power supports administrative, health services and logistical support operations; would all be in jeopardy without the FoPUK. The FoPUK provides a modernized materiel solution to a lineman's tool kit, personal protective equipment (PPE), a rapidly deployable maintenance shelter for medium power generation and distribution systems, and PPE test equipment. Procuring the systems with in the Family of Power Utility Kits enable Prime Power Soldiers to safely and effectively construct, operate and maintain medium voltage electrical generation and distribution systems.

FoPUK Estimated Army Procurement Objective (APO): Modernized - Lineman's Tool Kit(M-LTK) 78; Electrical Personal Protective Equipment(E-PPE) 253; Service Kit Power Plant(SKPP) 22; Electrical Personal Protective Equipment Test Equipment(E-PPE-TE) 1.

A baby under Family of Engineering Combat and Construction Sets (ECACS) to capture Family of Power Utility Kit(FOPUK) will be created because FOPUK can no longer be procured under Items Less than \$5M line.

Secondary Distribution	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
Army	Quantity	-	334	5	-	5	5	-	-
	Total Obligation Authority	2.000	4.128	8.014	-	8.014	8.987	-	-
Total: Secondary Distribution	Quantity	-	334	5	-	5	5	-	-
	Total Obligation Authority	2.000	4.128	8.014	-	8.014	8.987	-	-

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 25: Combat Service Support Equipment	P-1 Line Item Number / Title: 9530ML5301 / Items Less Than \$5M (Eng Spt)
--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-------------------------------------------------------------------------------------

ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
---------------------------------------------------	----------------------------------------	-------------------------------------

Line Item MDAP/MAIS Code: N/A

Exhibits Schedule					Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-5	ML5325 / ITEMS LESS THAN \$5.0M (ENG SPT EQ)	P-5a	A		20 / 220.651	0 / 2.000	334 / 4.128	5 / 8.014	- / -	5 / 8.014
P-40	Total Gross/Weapon System Cost				20 / 220.651	0 / 2.000	334 / 4.128	5 / 8.014	- / -	5 / 8.014

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

Justification:
 FY 2021 Base Procurement funding in the amount of \$8.014 million will be provided for the Family of Power Utility Kits Program (FoPUK) to procure 5 Service Kit Power Plants (SKPP). The procurement of these items will provide the capability improvements over Legacy systems by modernizing, standardizing, consolidating. Modernization of obsolete equipment ensures Soldier safety, reduce tool maintenance by providing industry standard equipment, logistics' footprint and reduce redundancies. It will also improve Soldier mobility to safely perform contingency power operations and provide containerization for deployment or storage/security of items in kit.

The FoPUK supports Gap #7 Air & Missile Defense and the indispensable nature of electrical power supports administrative, health services and logistical support operations; would all be in jeopardy without the FoPUK.

In accordance with Section 1815 of the FY 2008 National Defense Authorization Act (P.L. 110-181), this item is necessary for use by the active and reserve components of the Armed Forces for homeland defense missions, domestic emergency responses, and providing military support to civil authorities.

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 25	P-1 Line Item Number / Title: 9530ML5301 / Items Less Than \$5M (Eng Spt)	Item Number / Title [DODIC]: ML5325 / ITEMS LESS THAN \$5.0M (ENG SPT EQ)

ID Code (A=Service Ready, B=Not Service Ready) : A	MDAP/MAIS Code:
-----------------------------------------------------------	------------------------

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Procurement Quantity (Units in Each)	20	0	334	5	-	5
Gross/Weapon System Cost (\$ in Millions)	220.651	2.000	4.128	8.014	-	8.014
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	220.651	2.000	4.128	8.014	-	8.014
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	220.651	2.000	4.128	8.014	-	8.014

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (\$ in Millions)	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Thousands)	11,032.550	-	12.359	1,602.800	-	1,602.800

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
Flyaway Cost																		
Recurring Cost																		
1. Assault Boats	12.753	434	5.535	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2. Outboard Motors	4.511	92	0.415	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3. Carpenters Tool Kit (CTK)	13.555	494	6.696	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4. Diving Equipment, Scuba A	41.379	29	1.200	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5. Diving Equipment	1.227	277	0.340	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6. Dvg, Individual Swimmer Support Set	1.830	376	0.688	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7. Pneumatic Tool & Compressor Outfit	58.091	11	0.639	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hardware	392.985	522	205.138	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Recurring Cost</i>	-	-	220.651	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Flyaway Cost</i>	-	-	220.651	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hardware Cost																		
Recurring Cost																		
SERVICE KIT POWER PLANT ^(†)	-	-	-	-	-	-	937.000	2	1.874	947.400	5	4.737	-	-	-	947.400	5	4.737
Electrical Personal Protective Equipment Kit ^(†)	-	-	-	-	-	-	3.506	253	0.887	-	-	-	-	-	-	-	-	-

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 25		P-1 Line Item Number / Title: 9530ML5301 / Items Less Than \$5M (Eng Spt)
ID Code (A=Service Ready, B=Not Service Ready) : A		MDAP/MAIS Code:
Item Number / Title [DODIC]: ML5325 / ITEMS LESS THAN \$5.0M (ENG SPT EQ)		

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
Modernized Lineman's Tool Kit ^(f)	-	-	-	-	-	-	9.205	78	0.718	-	-	-	-	-	-	-	-	-
Electrical Personal Protective Equipment Test ^(f)	-	-	-	-	-	-	287.000	1	0.287	-	-	-	-	-	-	-	-	-
<i>Subtotal: Recurring Cost</i>	-	-	-	-	-	-	-	-	3.766	-	-	4.737	-	-	-	-	-	4.737
Non Recurring Cost																		
Fiber Reinforced Polymer matting kits	-	-	-	-	-	1.800	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Non Recurring Cost</i>	-	-	-	-	-	1.800	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Hardware Cost</i>	-	-	-	-	-	1.800	-	-	3.766	-	-	4.737	-	-	-	-	-	4.737
Logistics Cost																		
Recurring Cost																		
Logistics support	-	-	-	-	-	-	-	-	-	-	-	0.876	-	-	-	-	-	0.876
Tech Manuals	-	-	-	-	-	-	-	-	0.005	-	-	-	-	-	-	-	-	-
Transportation	-	-	-	-	-	-	-	-	-	-	-	0.210	-	-	-	-	-	0.210
<i>Subtotal: Recurring Cost</i>	-	-	-	-	-	-	-	-	0.005	-	-	1.086	-	-	-	-	-	1.086
<i>Subtotal: Logistics Cost</i>	-	-	-	-	-	-	-	-	0.005	-	-	1.086	-	-	-	-	-	1.086
Support - Fielding Cost																		
Fielding	-	-	-	-	-	-	-	-	0.212	-	-	1.236	-	-	-	-	-	1.236
<i>Subtotal: Support - Fielding Cost</i>	-	-	-	-	-	-	-	-	0.212	-	-	1.236	-	-	-	-	-	1.236
Support - Production Engineering Cost																		
Production Engineering	-	-	-	-	-	-	-	-	-	-	-	0.429	-	-	-	-	-	0.429
<i>Subtotal: Support - Production Engineering Cost</i>	-	-	-	-	-	-	-	-	-	-	-	0.429	-	-	-	-	-	0.429
Support - Program Management Cost																		
Government Management	-	-	-	-	-	0.200	-	-	0.145	-	-	0.333	-	-	-	-	-	0.333
<i>Subtotal: Support - Program Management Cost</i>	-	-	-	-	-	0.200	-	-	0.145	-	-	0.333	-	-	-	-	-	0.333
Support - Quality Assurance Cost																		
Quality Assurance	-	-	-	-	-	-	-	-	-	-	-	0.193	-	-	-	-	-	0.193
<i>Subtotal: Support - Quality Assurance Cost</i>	-	-	-	-	-	-	-	-	-	-	-	0.193	-	-	-	-	-	0.193

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 25	P-1 Line Item Number / Title: 9530ML5301 / Items Less Than \$5M (Eng Spt)	Item Number / Title [DODIC]: ML5325 / ITEMS LESS THAN \$5.0M (ENG SPT EQ)
ID Code (A=Service Ready, B=Not Service Ready) : A		MDAP/MAIS Code:

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
Gross/Weapon System Cost	11,032.550	20	220.651	-	0	2.000	12.359	334	4.128	1,602.800	5	8.014	-	-	-	1,602.800	5	8.014

Remarks:

FY 2019 funding in the amount of \$2.0 million supports the procurement of Fiber Reinforced Polymer Matting Kits by the U.S. Army Engineer Research and Development Center (ERDC). The FY 2019 funding is not related to the FoPUK program and was not executed by PEO CS&CSS Product Manager Sets, Kits, Outfits, & Tools (SKOT).

Gross/Weapon System Unit Cost is higher in FY21 compared to FY20 because there are multiple programs being funded in FY20 with multiple different unit costs.

FY21 quantity is 5 to keep the dollar threshold less than \$5M, however this funding should be on a baby created under Family of Engineering Combat and Construction Sets (ECACS) to allow for procurement of additional SKPPs.

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Army	Quantity	-	334	5	-	5
	Total Obligation Authority	2.000	4.128	8.014	-	8.014
Total: Secondary Distribution	Quantity	0	334	5	-	5
	Total Obligation Authority	2.000	4.128	8.014	-	8.014

(t) indicates the presence of a P-5a

UNCLASSIFIED

Exhibit P-5a, Procurement History and Planning: PB 2021 Army								Date: February 2020				
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 25			P-1 Line Item Number / Title: 9530ML5301 / Items Less Than \$5M (Eng Spt)					Item Number / Title [DODIC]: ML5325 / ITEMS LESS THAN \$5.0M (ENG SPT EQ)				
Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty (Each)	Unit Cost (\$ K)	Specs Avail Now?	Date Revision Available	RFP Issue Date
SERVICE KIT POWER PLANT		2020	TBD / TBD	C / TBD	TACOM-Warren, MI	Jun 2020	Jan 2021	2	937.000	N		
SERVICE KIT POWER PLANT		2021	TBD / TBD	C / TBD	TACOM-Warren, MI	Dec 2020	Jun 2021	5	947.400	N		
Electrical Personal Protective Equipment Kit		2020	TBD / TBD	C / TBD	TACOM-Warren, MI	Jun 2020	Jan 2021	253	3.506	N		
Modernized Lineman?s Tool Kit		2020	TBD / TBD	C / TBD	TACOM-Warren, MI	Jun 2020	Jan 2021	78	9.205	N		
Electrical Personal Protective Equipment Test		2020	TBD / TBD	C / TBD	TACOM-Warren, MI	Jun 2020	Jan 2021	1	287.000	N		

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 30: Petroleum Equipment	P-1 Line Item Number / Title: 4700MA6000 / Distribution Systems, Petroleum & Water
-------------------------------------------------------------------------------------------------------------------------------------------------------------------	----------------------------------------------------------------------------------------------

ID Code (A=Service Ready, B=Not Service Ready):	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
--------------------------------------------------------	-----------------------------------------------	--------------------------------------------

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	1,173	215	686	746	43	789	760	402	453	446	-	4,924
Gross/Weapon System Cost (<i>\$ in Millions</i>)	1,019.029	26.471	84.527	78.448	4.374	82.822	57.952	34.371	38.086	42.678	-	1,385.936
Less PY Advance Procurement (<i>\$ in Millions</i>)	0.182	-	-	-	-	-	-	-	-	-	-	0.182
Net Procurement (P-1) (<i>\$ in Millions</i>)	1,018.847	26.471	84.527	78.448	4.374	82.822	57.952	34.371	38.086	42.678	-	1,385.754
Plus CY Advance Procurement (<i>\$ in Millions</i>)	0.182	-	-	-	-	-	-	-	-	-	-	0.182
Total Obligation Authority (<i>\$ in Millions</i>)	1,019.029	26.471	84.527	78.448	4.374	82.822	57.952	34.371	38.086	42.678	-	1,385.936

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Thousands</i>)	868.737	123.121	123.217	105.158	101.721	104.971	76.253	85.500	84.075	95.691	-	281.465

Description:

The Family of Petroleum and Water Distribution Systems supports the Army Equipment Modernization Strategy of 2025, along with the Army's mission to supply bulk fuel and water, at the operational and tactical levels, to all Department of Defense (DoD) forces in the various worldwide Joint Operations Area. The systems support aircraft refueling, ground vehicles, and other Army equipment. Distribution Systems are comprised of hoses, pumps, tanks, filter separators, fittings, couplings, and nozzles.

The Water Storage and Distribution System (WSDS) is a potable water storage system in various configurations with self contained engine driven pumping system with automatic water chlorination that receives, stores and dispenses potable water. This easy transportable set utilizes quick disconnect couplings for rapid setup and take down. The set consists of the hypo-chlorination Unit, 350 GPM pump, collapsible water tanks, triple container and no special tools. The Army Acquisition Objective (AAO): 40,000 gallon is 93 systems and the 100,000 gallon is 30 systems.

The Modular Fuel System (MFS) Tank Rack Module (TRM) is a 2,500 gallon mobile storage and distribution platform. It is configured in a 20 foot International Organization for Standardization (ISO) frame with integrated bale bar and is Heavy Expanded Mobility Tactical Truck-Load Handling System (HEMTT-LHS), Palletized Load Handling System (PLS) and PLS Trailer transportable. The MFS-TRM has a Stand-Alone Retail Capability (S-ARC) with its integrated continuous use electric pump, filter separator and flow meter. It can be operated while truck or trailer mounted or on the ground. The MFS-TRM can also be coupled with the HEMTT Tanker to form a highly mobile 5,000 gallon distribution platform within Brigade Combat Teams. The MFS provides the ability to rapidly establish a fuel distribution and storage capability at any location regardless of the availability of construction equipment or material handling equipment. The AAO is 3,714 TRMs.

The Modular Fuel System (MFS) Pump Rack Module (PRM) is fuel pumping capability for use with TRM or Collapsible Fabric Storage Tanks to create a bulk fuel storage and distribution system. The MFS-PRM is configured in a 20 foot ISO frame with integrated bale bar and is HEMTT-LHS, PLS and PLS Trailer Transportable. It has a 600 gallon per minute pump, filter separator, and on board storage with sufficient hoses, fittings and nozzles for eight bulk or retail refueling points. The MFS-PRM and MFS-TRM provide the ability to rapidly establish a fuel distribution and storage capability at any location regardless of the availability of construction equipment or material handling equipment. The AAO is 31 PRMs.

The Early Entry Fluid Distribution System (E2FDS) is a highly automated flexible conduit system that complements the Inland Petroleum Distribution System (IPDS) by providing up to 50 miles of early entry capability for petroleum and water throughput. It can throughput 850,000 gallons of petroleum or 650,000 gallons of non-potable water per day and is able to emplace/retrieve conduit at a rate of 25/10 miles per day respectively. The E2FDS consists of five major modules: automated pump stations, Employment and Retrieval System (ERS), 50 miles of flexible conduit and conduit support equipment, command and control, and a trace planning tool. The components of the E2FDS will be packaged in ISO (nine high stackable) 20-foot equivalent units (TEU) for deployment and are transportable via HEMTT-LHS, PLS and PLS Trailer. During the early phases of operations, the E2FDS reduces the requirement for line-haul petroleum semitrailers and relieves main supply route congestion. The E2FDS enables rapid setup of the

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 30: Petroleum Equipment	P-1 Line Item Number / Title: 4700MA6000 / Distribution Systems, Petroleum & Water
-------------------------------------------------------------------------------------------------------------------------------------------------------------------	----------------------------------------------------------------------------------------------

ID Code (A=Service Ready, B=Not Service Ready):	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
--------------------------------------------------------	-----------------------------------------------	--------------------------------------------

Line Item MDAP/MAIS Code: N/A

conduit trace, and the automation and centralized control enable greater precision of pipeline operations with fewer personnel. Once the IPDS pipeline is emplaced, the E2FDS can be used to extend the pipeline trace or be moved to another location. The AAO is 13 five-mile sets.

The Mobile Tactical Retail Refueling System (MTRRS) is a 900 gallon capacity fuel tank, 17 gallons per minute electric fuel motor/pump, a filter separator, and a flow meter. MTRRS allows for different configurations and transport platforms including cargo trucks, trailers, and Load Handling System flat-racks. The system can be removed from transport platform and operated on the ground. The MTRRS will replace the aging Tank Pump Unit (TPU) and Tank Unit Liquid Dispensing (TULD) systems. The AAO is 2,607.

The Load Handling System (LHS) Compatible Water Tank Rack System (Hippo) is a 2,000 gallon potable water tank mounted in an ISO frame. It is outfitted with a water pump, hose reel, and filling station. It is used for bulk load and discharge, retail distribution, and bulk storage of potable water. The prime mover is HEMTT-LHS, and PLS. HIPPOs will replace the 3k Semi-trailer Mounted Fabric Tank (SMFT) and most Forward Area Water Point Supply systems (FAWPSS). The AAO is 3,356.

The Fuel System Supply Point (FSSP) is a family of systems which consists of three storage capacities: 120K, 300K, and 800K gallon systems. This system is a bulk fuel receiving, issuing, and storing facility consisting of a 600 Gallons per Minute (GPM) pump, 350 GPM pump, 350 GPM filter separator and collapsible fabric storage tanks. The tanks vary in size from 20,000 gallons to 210,000 gallons. The 120K FSSP has 6 ea 20K fuel bags and 2 ea 350 GPM pumps. The 300K FSSP has 6 ea 50K fuel bags and 2 ea 350 GPM Pumps. The 800K FSSP has 4 ea 210K fuel bags and 2 ea 600 GPM pumps. The AAO: FSSP 120K is 178 systems, FSSP 300K is 254 systems, and FSSP 800K is 58 systems.

The Unit Water Pod System (Camel II) is an 800 gallon hard wall stainless steel water tank mounted on a 5-Ton trailer. It includes retail dispensing hardware comprised of the hoses and fittings necessary to gravity dispense water. The Camel II also includes integrated freeze protection that can be powered by external sources. The Camel II will partially replace the M149 and M1112 (400 gallon) potable water trailers within Field Feeding Units with Containerized Kitchens (CKs). The increase from 400-gallons to 800-gallons in capacity will decrease the frequency of water refill requirements by reducing the number of resupplies required per day. The Camel II will provide a CK with a greater capacity for carrying one full day of supply (DOS) of potable water required, approximately 1.92 gallons/person/day (gpd), for field feeding (two Unitized Group Rations [UGRs] and one Meal, Ready to Eat [MRE] per day). Current and emerging doctrine dictates the need for a combat enabler that increases unit level storage and DOS capabilities on the battlefield. Camel II will interface with the MTV 5-ton Truck as the prime mover and is operationally compatible with existing and future water purification, transport, and distribution systems. The design of Camel II Increment One includes an allowance for the space and weight necessary for the add-on capability of Increment Two, which includes a modular unit capable of water chilling, circulation, pumping (self-load/unload), and power generation. The AAO is 575.

The Water Bison replaces the aging Water Buffalo and provides a full days supply of bulk potable water to Army units. The Water Bison consists of a 500 gallon (gal) baffled capacity tank The Bison Lite consists of a 250 gal baffled capacity tank, both Water Bison and Water Bison Lite are mounted on a trailer and include integrated freeze prevention. The AAO is 9,424.

Note: The Army is the executive agent for the Management of Land-Based Water Resources in support of Contingency Operations and has responsibility for all inland distribution of fuel and water to include support to other services. Distribution Systems support the Stryker Brigade Combat Teams (SBCTs), Brigade Combat Teams, Field Artillery, Maneuver Enhancement Brigades, and the Petroleum and Water Quartermaster (QM) modular force war fighting capabilities. These systems are the Army's primary means of distributing and issuing retail and bulk petroleum and water. The Army cannot fight without clean water and fuel. These systems enable the Army to achieve its Force 2025 vision by providing highly mobile and self-sustaining equipment to hostile theaters of operation. The ability to rapidly, efficiently, and safely distribute fuel on the battlefield is a critical combat enabler. Funding supports a balanced investment strategy for the Army's approved force structure and Army Force Generation (ARFORGEN) requirements to support Active, National Guard, and Reserve Components.

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
Army	Quantity	151	357	266	43	309	157	109	116	109
	Total Obligation Authority	21.085	50.198	40.136	4.374	44.510	11.034	8.064	8.057	8.901
ANG	Quantity	54	245	413	-	413	524	176	196	166
	Total Obligation Authority	4.656	20.753	32.220	-	32.220	40.962	16.200	17.746	16.561

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2021 Army							Date: February 2020		
Appropriation / Budget Activity / Budget Sub Activity: 2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 30: Petroleum Equipment					P-1 Line Item Number / Title: 4700MA6000 / Distribution Systems, Petroleum & Water				
ID Code (A=Service Ready, B=Not Service Ready):			Program Elements for Code B Items: N/A			Other Related Program Elements: N/A			
Line Item MDAP/MAIS Code: N/A									

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
AR	Quantity	10	84	67	-	67	79	117	141	171
	Total Obligation Authority	0.730	13.576	6.092	-	6.092	5.956	10.107	12.283	17.216
Total:	Quantity	215	686	746	43	789	760	402	453	446
Secondary Distribution	Total Obligation Authority	26.471	84.527	78.448	4.374	82.822	57.952	34.371	38.086	42.678

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity:
2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 30: Petroleum Equipment

P-1 Line Item Number / Title:
4700MA6000 / Distribution Systems, Petroleum & Water

ID Code (A=Service Ready, B=Not Service Ready): **Program Elements for Code B Items:** N/A **Other Related Program Elements:** N/A

Line Item MDAP/MAIS Code: N/A

Exhibits Schedule					Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-5	M13300 / WATER STOR/DIST SET, 1,000,000 GAL	P-5a	B		- / 4.686	- / -	- / -	9 / 2.997	- / -	9 / 2.997
P-5	M60300 / FUEL SYSTEM SUPPLY POINT		A		94 / 377.445	2 / 1.770	- / -	- / -	- / -	- / -
P-5	R02600 / Modular Fuel System (MFS)	P-5a, P-21	A		525 / 236.745	131 / 10.186	454 / 39.434	569 / 42.562	- / -	569 / 42.562
P-5	R02690 / EARLY ENTRY FLUID DISTRIBUTION SYSTEM (E2FDS)	P-5a, P-21	B		2 / 5.830	0 / 4.852	6 / 16.937	6 / 20.771	- / -	6 / 20.771
P-5	R38000 / Mobile Tactical Refueling System	P-5a, P-21	B		59 / 10.873	0 / -	76 / 8.372	138 / 8.358	- / -	138 / 8.358
P-5	R38100 / HIPPO WATER DISTRIBUTION SYSTEM	P-5a, P-21	A		384 / 287.538	41 / 5.342	150 / 19.784	24 / 3.760	43 / 4.374	67 / 8.134
P-5	R38101 / Unit Water Pod System	P-5a	A		109 / 95.912	41 / 4.321	- / -	- / -	- / -	- / -
P-40	Total Gross/Weapon System Cost				1,173 / 1,019.029	215 / 26.471	686 / 84.527	746 / 78.448	43 / 4.374	789 / 82.822

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

Justification:
FY 2021 Base procurement dollars in the amount of \$78.448 million supports the procurement of 9 ea. Water Storage Distribution Sets (WSDS) 100,000 gallon, 569 ea. Modular Fuel System (MFS) Tank Rack Module (TRM), 6 ea. Early Entry Fluid Distribution System (E2FDS), 138 ea. Mobile Tactical Refueling System (MTRRS), and 24 ea. Load Handling System (LHS) Compatible Water Tank Racks System (Hippo). This funding also supports engineering changes; system engineering/program management; system test & evaluation; training; logistics products; support equipment; and fielding for all systems procured with FY2021 base procurement and Modular Fuel System (MFS) Pump Rack Module (PRM).

FY 2021 Overseas Contingency Operations (OCO) procurement dollars in the amount of \$4.374 million supports the procurement and fielding of 43 ea. Hippo systems for European Deterrence Initiative (EDI).

In FY 2021, \$0.178 million in Reimbursable Manpower for Hippo has been realigned from Reimbursable Civilian Funding to Direct Operations and Maintenance. Program support costs have been accurately updated to reflect the realignments.

M13300 Water/Storage Distribution Sets is a New Start program for FY 2021.

FY20 funded quantity (6 ea.) for MFS PRM increased as a result of an Army Acquisition Objective (AAO) increase of 6 ea. FY20 funded quantity (465 ea.) for MFS TRM increased as a result of contract actuals, realizing a lower unit cost than planned. FY20 funded quantity (179 ea.) for Hippo increased as a result of better unit cost estimates.

The Army is the executive agent for the Management of Land-Based Water Resources in support of Contingency Operations and has responsibility for all inland distribution of fuel and water to include support to other services. Distribution Systems support the Stryker Brigade Combat Teams (SBCTs), Brigade Combat Teams, Field Artillery, Maneuver Enhancement Brigades, and the Petroleum and Water Quartermaster (QM) modular force war fighting capabilities. These systems are the Army's primary means of distributing and issuing retail and bulk petroleum and water. The Army cannot fight without clean water and fuel. These systems enable the Army to achieve its Force 2025 vision by providing highly mobile and self-sustaining equipment to hostile theaters of operation. The ability to rapidly, efficiently, and safely distribute fuel on the battlefield is a critical combat enabler. Funding supports a balanced investment strategy for the Army's approved force structure and Army Force Generation (ARFORGEN) requirements to support Active, National Guard, and Reserve Components.

In accordance with Section 1815 of the FY 2008 National Defense Authorization Act (P.L. 110-181), this item is necessary for use by the active and reserve components of the Armed Forces for homeland defense missions, domestic emergency responses, and providing military support to civil authorities.

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 30: Petroleum Equipment		P-1 Line Item Number / Title: 4700MA6000 / Distribution Systems, Petroleum & Water
ID Code (A=Service Ready, B=Not Service Ready):	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
Line Item MDAP/MAIS Code: N/A		

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 30	P-1 Line Item Number / Title: 4700MA6000 / Distribution Systems, Petroleum & Water	Item Number / Title [DODIC]: M13300 / WATER STOR/DIST SET, 1,000,000 GAL

ID Code (A=Service Ready, B=Not Service Ready) : B	MDAP/MAIS Code:
-----------------------------------------------------------	------------------------

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Procurement Quantity (Units in Each)	-	-	-	9	-	9
Gross/Weapon System Cost (\$ in Millions)	4.686	-	-	2.997	-	2.997
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	4.686	-	-	2.997	-	2.997
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	4.686	-	-	2.997	-	2.997

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (\$ in Millions)	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Thousands)	-	-	-	333.000	-	333.000

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
Flyaway Cost																		
Recurring Cost																		
Water Stor/Dist Set, ^(†)	93.784	37	3.470	-	-	-	-	-	-	280.000	9	2.520	-	-	-	280.000	9	2.520
Engineering Changes	-	-	0.178	-	-	-	-	-	-	-	-	0.006	-	-	-	-	-	0.006
System Engineering/ Program Management	-	-	0.533	-	-	-	-	-	-	-	-	0.442	-	-	-	-	-	0.442
System Test & Evaluation, Production	-	-	0.025	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Training	-	-	0.150	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Data	-	-	0.080	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Support Equipment	-	-	0.100	-	-	-	-	-	-	-	-	0.005	-	-	-	-	-	0.005
Fielding	-	-	0.150	-	-	-	-	-	-	-	-	0.024	-	-	-	-	-	0.024
<i>Subtotal: Recurring Cost</i>	-	-	4.686	-	-	-	-	-	-	-	-	2.997	-	-	-	-	-	2.997
<i>Subtotal: Flyaway Cost</i>	-	-	4.686	-	-	-	-	-	-	-	-	2.997	-	-	-	-	-	2.997
Gross/Weapon System Cost	-	-	4.686	-	-	-	-	-	-	333.000	9	2.997	-	-	-	333.000	9	2.997

Remarks:

Water Storage/Distribution Set is a "New Start" in FY21.

FY21 quantity actual quantity to be procured 6 ea. for a total cost of \$1.668 million. The additional \$0.844 million will be used to support logistics requirements such as logistic data.

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 30	P-1 Line Item Number / Title: 4700MA6000 / Distribution Systems, Petroleum & Water	Item Number / Title [DODIC]: M13300 / WATER STOR/DIST SET, 1,000,000 GAL

ID Code (A=Service Ready, B=Not Service Ready) : B **MDAP/MAIS Code:**

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Army	Quantity	-	-	1	-	1
	Total Obligation Authority	-	-	0.600	-	0.600
ANG	Quantity	-	-	4	-	4
	Total Obligation Authority	-	-	1.199	-	1.199
AR	Quantity	-	-	4	-	4
	Total Obligation Authority	-	-	1.198	-	1.198
Total:	Quantity	-	-	9	-	9
Secondary Distribution	Total Obligation Authority	-	-	2.997	-	2.997

(t) indicates the presence of a P-5a

UNCLASSIFIED

Exhibit P-5a, Procurement History and Planning: PB 2021 Army							Date: February 2020					
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 30			P-1 Line Item Number / Title: 4700MA6000 / Distribution Systems, Petroleum & Water				Item Number / Title [DODIC]: M13300 / WATER STOR/DIST SET, 1,000,000 GAL					
Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty (Each)	Unit Cost (\$ K)	Specs Avail Now?	Date Revision Available	RFP Issue Date
Water Stor/Dist Set,		2021	TBD / TBD	C / FFP	TACOM	Feb 2021	Dec 2021	9	280.000	N		

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 30	P-1 Line Item Number / Title: 4700MA6000 / Distribution Systems, Petroleum & Water	Item Number / Title [DODIC]: M60300 / FUEL SYSTEM SUPPLY POINT

ID Code (A=Service Ready, B=Not Service Ready) : A	MDAP/MAIS Code:
-----------------------------------------------------------	------------------------

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Procurement Quantity (Units in Each)	94	2	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	377.445	1.770	-	-	-	-
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	377.445	1.770	-	-	-	-
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	377.445	1.770	-	-	-	-

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (\$ in Millions)	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Thousands)	4,015.372	885.000	-	-	-	-

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
Flyaway Cost																		
Recurring Cost																		
FSSP 300K	3,091.000	63	194.733	790.000	2	1.580	-	-	-	-	-	-	-	-	-	-	-	-
FSSP 120K	-	-	97.700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
FSSP 800K	-	-	66.100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
System Engineering/ Program Management	-	-	12.912	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fielding	-	-	6.000	-	-	0.190	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Recurring Cost</i>	-	-	<i>377.445</i>	-	-	<i>1.770</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Flyaway Cost</i>	-	-	<i>377.445</i>	-	-	<i>1.770</i>	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost	4,015.372	94	377.445	885.000	2	1.770	-	-	-	-	-	-	-	-	-	-	-	-

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Army	Quantity	2	-	-	-	-
	Total Obligation Authority	1.770	-	-	-	-
Total:	Quantity	2	-	-	-	-
Secondary Distribution	Total Obligation Authority	1.770	-	-	-	-

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 30	P-1 Line Item Number / Title: 4700MA6000 / Distribution Systems, Petroleum & Water	Item Number / Title [DODIC]: R02600 / Modular Fuel System (MFS)

ID Code (A=Service Ready, B=Not Service Ready) : A	MDAP/MAIS Code:
-----------------------------------------------------------	------------------------

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Procurement Quantity (<i>Units in Each</i>)	525	131	454	569	-	569
Gross/Weapon System Cost (<i>\$ in Millions</i>)	236.745	10.186	39.434	42.562	-	42.562
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	236.745	10.186	39.434	42.562	-	42.562
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	236.745	10.186	39.434	42.562	-	42.562

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Thousands</i>)	450.943	77.756	86.859	74.801	-	74.801

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
Flyaway Cost																		
Recurring Cost																		
Pump Rack Modules	787.000	1	0.787	-	-	-	792.000	6	4.752	-	-	-	-	-	-	-	-	-
Tank Rack Modules ^(†)	58.050	1,145	66.467	67.405	131	8.830	69.660	465	32.392	71.401	569	40.627	-	-	-	71.401	569	40.627
Engineering Changes	-	-	35.320	-	-	0.100	-	-	0.236	-	-	-	-	-	-	-	-	-
System Engineering/ Program Management	-	-	56.963	-	-	0.603	-	-	0.801	-	-	1.019	-	-	-	-	-	1.019
System Test & Evaluation, Production	-	-	36.970	-	-	0.250	-	-	0.203	-	-	0.028	-	-	-	-	-	0.028
Training	-	-	1.309	-	-	0.150	-	-	0.101	-	-	-	-	-	-	-	-	-
Data	-	-	2.806	-	-	0.150	-	-	0.034	-	-	-	-	-	-	-	-	-
Support Equipment	-	-	3.370	-	-	0.053	-	-	0.207	-	-	0.034	-	-	-	-	-	0.034
Fielding	-	-	32.753	-	-	0.050	-	-	0.708	-	-	0.854	-	-	-	-	-	0.854
<i>Subtotal: Recurring Cost</i>	-	-	236.745	-	-	10.186	-	-	39.434	-	-	42.562	-	-	-	-	-	42.562
<i>Subtotal: Flyaway Cost</i>	-	-	236.745	-	-	10.186	-	-	39.434	-	-	42.562	-	-	-	-	-	42.562
Gross/Weapon System Cost	450.943	525	236.745	77.756	131	10.186	86.859	454	39.434	74.801	569	42.562	-	-	-	74.801	569	42.562

Remarks:

FY20 funded quantity (6 ea.) for MFS PRM increased as a result of an Army Acquisition Objective (AAO) increase of 6 ea. FY20 funded quantity (465 ea.) for MFS TRM increased as a result of contract actuals, realizing a lower unit cost than planned.

FY20 funding will also be used to refurbish a PRM asset used for Production Verification Testing (PVT).

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 30	P-1 Line Item Number / Title: 4700MA6000 / Distribution Systems, Petroleum & Water	Item Number / Title [DODIC]: R02600 / Modular Fuel System (MFS)
ID Code (A=Service Ready, B=Not Service Ready) : A		MDAP/MAIS Code:

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Army	Quantity	81	199	217	-	217
	Total Obligation Authority	6.536	14.578	16.252	-	16.252
ANG	Quantity	40	193	352	-	352
	Total Obligation Authority	2.920	14.126	26.310	-	26.310
AR	Quantity	10	62	-	-	-
	Total Obligation Authority	0.730	10.730	-	-	-
Total:	Quantity	131	454	569	-	569
Secondary Distribution	Total Obligation Authority	10.186	39.434	42.562	-	42.562

(t) indicates the presence of a P-5a

UNCLASSIFIED

Exhibit P-5a, Procurement History and Planning: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 30	P-1 Line Item Number / Title: 4700MA6000 / Distribution Systems, Petroleum & Water	Item Number / Title [DODIC]: R02600 / Modular Fuel System (MFS)
----------------------------------------------------------------------------------	----------------------------------------------------------------------------------------------	---------------------------------------------------------------------------

Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty <i>(Each)</i>	Unit Cost <i>(\$ K)</i>	Specs Avail Now?	Date Revision Available	RFP Issue Date
Tank Rack Modules ^(†)		2019	ISOMETRICS - TRM / Reidsville, NC	C / FFP	TACOM	Feb 2019	Aug 2019	131	67.405	N		
Tank Rack Modules ^(†)		2020	ISOMETRICS - TRM / Reidsville, NC	C / FFP	TACOM	Mar 2020	Oct 2020	465	69.660	N		
Tank Rack Modules ^(†)		2021	ISOMETRICS - TRM / Reidsville, NC	C / FFP	TACOM	Mar 2021	Oct 2021	569	71.401	N		

^(†) indicates the presence of a P-21

UNCLASSIFIED

Exhibit P-21, Production Schedule: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 30 **P-1 Line Item Number / Title:** 4700MA6000 / Distribution Systems, Petroleum & Water **Item Number / Title [DODIC]:** R02600 / Modular Fuel System (MFS)

Cost Elements <i>(Units in Each)</i>						Fiscal Year 2021													Fiscal Year 2022													BALANCE							
O C C #	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2020	BAL DUE AS OF 1 OCT	Calendar Year 2021													Calendar Year 2022																			
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P									
Tank Rack Modules																																							
Prior Years Deliveries: 1145																																							
1	2019	ARMY		131	131	0																							0										
1	2020	ARMY		465	0	465	15	45	45	45	45	45	45	45	45	32	13													0									
1	2021	ARMY		569	0	569												A	-	-	-	-	-	-	-	50	50	50	50	50	50	50	50	50	49	40	40	40	0
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P									

UNCLASSIFIED

Exhibit P-21, Production Schedule: PB 2021 Army	Date: February 2020
--------------------------------------------------------	----------------------------

Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 30	P-1 Line Item Number / Title: 4700MA6000 / Distribution Systems, Petroleum & Water	Item Number / Title [DODIC]: R02600 / Modular Fuel System (MFS)
----------------------------------------------------------------------------------	----------------------------------------------------------------------------------------------	---------------------------------------------------------------------------

MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Month)			Procurement Leadtime (Months)							
		MSR For 2021	1-8-5 For 2021	MAX For 2021	Initial				Reorder			
					ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1	ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1
1	ISOMETRICS - TRM - Reidsville, NC	15	32	54	0	4	6	10	0	1	7	8

"A" in the Delivery Schedule indicates the Contract Award Date.

Note: Due to space limitations, quantities in the Exhibit P-21 delivery calendar are truncated and rounded based on the maximum quantity in the calendar as follows. If the maximum quantity is less than or equal to than 9,999, all quantities are shown as each. If the maximum quantity is between 10,000 and 999,999 all quantities are shown in thousands. If the maximum quantity is between 1,000,000 and 999,999,999 all quantities are shown in millions (rounded to the nearest thousand). If the maximum quantity is equal or greater than 1,000,000,000 all quantities are shown in billions (rounded to the nearest million).

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 30	P-1 Line Item Number / Title: 4700MA6000 / Distribution Systems, Petroleum & Water	Item Number / Title [DODIC]: R02690 / EARLY ENTRY FLUID DISTRIBUTION SYSTEM (E2FDS)

ID Code (A=Service Ready, B=Not Service Ready) : B	MDAP/MAIS Code:
-----------------------------------------------------------	------------------------

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Procurement Quantity (Units in Each)	2	0	6	6	-	6
Gross/Weapon System Cost (\$ in Millions)	5.830	4.852	16.937	20.771	-	20.771
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	5.830	4.852	16.937	20.771	-	20.771
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	5.830	4.852	16.937	20.771	-	20.771

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (\$ in Millions)	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Thousands)	2,915.000	-	2,822.833	3,461.833	-	3,461.833

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
Flyaway Cost																		
Recurring Cost																		
E2FDS System ^(†)	1,788.000	2	3.576	2,950.000	1	2.950	2,458.333	6	14.750	2,600.000	6	15.600	-	-	-	2,600.000	6	15.600
Engineering Changes	-	-	0.024	-	-	0.200	-	-	-	-	-	0.006	-	-	-	-	-	0.006
System engineering/ Program management	-	-	0.934	-	-	0.968	-	-	0.682	-	-	1.101	-	-	-	-	-	1.101
System Test & Evaluation, Production	-	-	0.450	-	-	0.055	-	-	0.280	-	-	-	-	-	-	-	-	-
Training	-	-	0.200	-	-	0.200	-	-	0.100	-	-	1.413	-	-	-	-	-	1.413
Data	-	-	0.200	-	-	0.075	-	-	0.050	-	-	2.541	-	-	-	-	-	2.541
Support Equipment	-	-	0.196	-	-	0.154	-	-	0.075	-	-	0.002	-	-	-	-	-	0.002
Fielding	-	-	0.250	-	-	0.250	-	-	1.000	-	-	0.108	-	-	-	-	-	0.108
<i>Subtotal: Recurring Cost</i>	-	-	5.830	-	-	4.852	-	-	16.937	-	-	20.771	-	-	-	-	-	20.771
<i>Subtotal: Flyaway Cost</i>	-	-	5.830	-	-	4.852	-	-	16.937	-	-	20.771	-	-	-	-	-	20.771
Gross/Weapon System Cost	2,915.000	2	5.830	-	0	4.852	2,822.833	6	16.937	3,461.833	6	20.771	-	-	-	3,461.833	6	20.771

Secondary Distribution	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Army	-	6	6	-	6
Total:	4.852	16.937	20.771	-	20.771
Total:	0	6	6	-	6

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 30	P-1 Line Item Number / Title: 4700MA6000 / Distribution Systems, Petroleum & Water	Item Number / Title [DODIC]: R02690 / EARLY ENTRY FLUID DISTRIBUTION SYSTEM (E2FDS)

ID Code (A=Service Ready, B=Not Service Ready) : B	MDAP/MAIS Code:
-----------------------------------------------------------	------------------------

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Secondary Distribution	Total Obligation Authority	4.852	16.937	20.771	-	20.771

(t) indicates the presence of a P-5a

UNCLASSIFIED

Exhibit P-5a, Procurement History and Planning: PB 2021 Army							Date: February 2020					
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 30			P-1 Line Item Number / Title: 4700MA6000 / Distribution Systems, Petroleum & Water				Item Number / Title [DODIC]: R02690 / EARLY ENTRY FLUID DISTRIBUTION SYSTEM (E2FDS)					

Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty <i>(Each)</i>	Unit Cost <i>(\$ K)</i>	Specs Avail Now?	Date Revision Available	RFP Issue Date
E2FDS System ^(†)		2019	DRS / West Plains, IL	C / FFP	TACOM	Aug 2019	Feb 2020	1	2,950.000	N		
E2FDS System ^(†)		2020	DRS / West Plains, IL	C / FFP	TACOM	Apr 2020	Oct 2020	6	2,458.333	N		
E2FDS System ^(†)		2021	DRS / West Plains, IL	C / FFP	TACOM	Nov 2020	May 2021	6	2,600.000	N		

^(†) indicates the presence of a P-21

UNCLASSIFIED

Exhibit P-21, Production Schedule: PB 2021 Army													Date: February 2020																
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 30						P-1 Line Item Number / Title: 4700MA6000 / Distribution Systems, Petroleum & Water												Item Number / Title [DODIC]: R02690 / EARLY ENTRY FLUID DISTRIBUTION SYSTEM (E2FDS)											

Cost Elements <i>(Units in Each)</i>						Fiscal Year 2021												Fiscal Year 2022												BALANCE						
O C O #	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2020	BAL DUE AS OF 1 OCT	Calendar Year 2021												Calendar Year 2022																	
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G		S E P					
E2FDS System																																				
Prior Years Deliveries: 2																																				
1		2019	ARMY	1	1	0																														0
1		2020	ARMY	6	0	6	1	1	1	1	1	1																								0
1		2021	ARMY	6	0	6		A	-	-	-	-	-	-	1	1	1	1	1	1																0
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P						

UNCLASSIFIED

Exhibit P-21, Production Schedule: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 30		P-1 Line Item Number / Title: 4700MA6000 / Distribution Systems, Petroleum & Water
		Item Number / Title [DODIC]: R02690 / EARLY ENTRY FLUID DISTRIBUTION SYSTEM (E2FDS)

MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Month)			Procurement Leadtime (Months)							
		MSR For 2021	1-8-5 For 2021	MAX For 2021	Initial				Reorder			
					ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1	ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1
1	DRS - West Plains, IL	1	1	2	18	0	6	6	0	2	6	8

"A" in the Delivery Schedule indicates the Contract Award Date.

Note: Due to space limitations, quantities in the Exhibit P-21 delivery calendar are truncated and rounded based on the maximum quantity in the calendar as follows. If the maximum quantity is less than or equal to than 9,999, all quantities are shown as each. If the maximum quantity is between 10,000 and 999,999 all quantities are shown in thousands. If the maximum quantity is between 1,000,000 and 999,999,999 all quantities are shown in millions (rounded to the nearest thousand). If the maximum quantity is equal or greater than 1,000,000,000 all quantities are shown in billions (rounded to the nearest million).

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 30	P-1 Line Item Number / Title: 4700MA6000 / Distribution Systems, Petroleum & Water	Item Number / Title [DODIC]: R38000 / Mobile Tactical Refueling System

ID Code (A=Service Ready, B=Not Service Ready) : B	MDAP/MAIS Code:
-----------------------------------------------------------	------------------------

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Procurement Quantity (Units in Each)	59	0	76	138	-	138
Gross/Weapon System Cost (\$ in Millions)	10.873	-	8.372	8.358	-	8.358
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	10.873	-	8.372	8.358	-	8.358
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	10.873	-	8.372	8.358	-	8.358

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (\$ in Millions)	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Thousands)	184.288	-	110.158	60.565	-	60.565

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
Flyaway Cost																		
Recurring Cost																		
Mobile Tactical Refueling System ^(†)	52.068	59	3.072	-	-	-	52.053	76	3.956	50.000	138	6.900	-	-	-	50.000	138	6.900
Engineering Changes (ECPs)	-	-	1.461	-	-	-	-	-	0.227	-	-	-	-	-	-	-	-	-
System Engineering/ Program Management	-	-	1.350	-	-	-	-	-	0.783	-	-	0.621	-	-	-	-	-	0.621
System Test & Evaluation, Production	-	-	0.570	-	-	-	-	-	0.951	-	-	-	-	-	-	-	-	-
Training	-	-	0.055	-	-	-	-	-	0.170	-	-	-	-	-	-	-	-	-
Data	-	-	4.155	-	-	-	-	-	2.079	-	-	0.501	-	-	-	-	-	0.501
Support Equipment	-	-	0.185	-	-	-	-	-	0.064	-	-	0.108	-	-	-	-	-	0.108
Fielding	-	-	0.025	-	-	-	-	-	0.142	-	-	0.228	-	-	-	-	-	0.228
<i>Subtotal: Recurring Cost</i>	-	-	10.873	-	-	-	-	-	8.372	-	-	8.358	-	-	-	-	-	8.358
<i>Subtotal: Flyaway Cost</i>	-	-	10.873	-	-	-	-	-	8.372	-	-	8.358	-	-	-	-	-	8.358
Gross/Weapon System Cost	184.288	59	10.873	-	0	-	110.158	76	8.372	60.565	138	8.358	-	-	-	60.565	138	8.358

Remarks:

FY21 funding will also support the procurement of initial spares.

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 30	P-1 Line Item Number / Title: 4700MA6000 / Distribution Systems, Petroleum & Water	Item Number / Title [DODIC]: R38000 / Mobile Tactical Refueling System

ID Code (A=Service Ready, B=Not Service Ready) : B **MDAP/MAIS Code:**

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Army	Quantity	-	42	42	-	42
	Total Obligation Authority	-	3.910	2.513	-	2.513
ANG	Quantity	-	17	44	-	44
	Total Obligation Authority	-	2.275	2.677	-	2.677
AR	Quantity	-	17	52	-	52
	Total Obligation Authority	-	2.187	3.168	-	3.168
Total:	Quantity	0	76	138	-	138
Secondary Distribution	Total Obligation Authority	-	8.372	8.358	-	8.358

(t) indicates the presence of a P-5a

UNCLASSIFIED

Exhibit P-5a, Procurement History and Planning: PB 2021 Army							Date: February 2020					
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 30			P-1 Line Item Number / Title: 4700MA6000 / Distribution Systems, Petroleum & Water				Item Number / Title [DODIC]: R38000 / Mobile Tactical Refueling System					
Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty (Each)	Unit Cost (\$ K)	Specs Avail Now?	Date Revision Available	RFP Issue Date
Mobile Tactical Refueling System ^(†)		2020	TBD / TBD	C / FFP	Warren, MI	Mar 2020	Jul 2020	76	52.053	N		
Mobile Tactical Refueling System ^(†)		2021	TBD / TBD	C / FFP	Warren, MI	Mar 2021	Jul 2021	138	50.000	N		

^(†) indicates the presence of a P-21

UNCLASSIFIED

Exhibit P-21, Production Schedule: PB 2021 Army																							Date: February 2020										
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 30										P-1 Line Item Number / Title: 4700MA6000 / Distribution Systems, Petroleum & Water										Item Number / Title [DODIC]: R38000 / Mobile Tactical Refueling System													
Cost Elements <i>(Units in Each)</i>								Fiscal Year 2020															Fiscal Year 2021										B A L A N C E
O C C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2019	BAL DUE AS OF 1 OCT	Calendar Year 2020															Calendar Year 2021											
							O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S			
							C	O	E	A	E	A	P	A	U	U	U	E	C	O	V	E	A	E	A	P	A	U	U	U	E		
							T	V	C	N	B	R	R	Y	N	L	G	P	T	V	C	N	B	R	R	Y	N	L	G	P			
Mobile Tactical Refueling System																																	
Prior Years Deliveries: 59																																	
	1	2020	ARMY	76	0	76																											
	1	2021	ARMY	138	0	138																											

UNCLASSIFIED

Exhibit P-21, Production Schedule: PB 2021 Army																Date: February 2020													
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 30										P-1 Line Item Number / Title: 4700MA6000 / Distribution Systems, Petroleum & Water										Item Number / Title [DODIC]: R38000 / Mobile Tactical Refueling System									

Cost Elements <i>(Units in Each)</i>						Fiscal Year 2022													Fiscal Year 2023													BALANCE	
O C C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2021	BAL DUE AS OF 1 OCT	Calendar Year 2022													Calendar Year 2023													
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P			
Mobile Tactical Refueling System																																	
Prior Years Deliveries: 59																																	
1		2020	ARMY	76	76	0																								0			
1		2021	ARMY	138	31	107	11	12	12	12	12	12	12	12																0			
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P			

UNCLASSIFIED

Exhibit P-21, Production Schedule: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 30		P-1 Line Item Number / Title: 4700MA6000 / Distribution Systems, Petroleum & Water
Item Number / Title [DODIC]: R38000 / Mobile Tactical Refueling System		

MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Month)			Procurement Leadtime (Months)							
		MSR For 2021	1-8-5 For 2021	MAX For 2021	Initial				Reorder			
					ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1	ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1
1	TBD - TBD	8	16	60	0	9	4	13	0	3	4	7

"A" in the Delivery Schedule indicates the Contract Award Date.

Note: Due to space limitations, quantities in the Exhibit P-21 delivery calendar are truncated and rounded based on the maximum quantity in the calendar as follows. If the maximum quantity is less than or equal to than 9,999, all quantities are shown as each. If the maximum quantity is between 10,000 and 999,999 all quantities are shown in thousands. If the maximum quantity is between 1,000,000 and 999,999,999 all quantities are shown in millions (rounded to the nearest thousand). If the maximum quantity is equal or greater than 1,000,000,000 all quantities are shown in billions (rounded to the nearest million).

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 30	P-1 Line Item Number / Title: 4700MA6000 / Distribution Systems, Petroleum & Water	Item Number / Title [DODIC]: R38100 / HIPPO WATER DISTRIBUTION SYSTEM

ID Code (A=Service Ready, B=Not Service Ready) : A	MDAP/MAIS Code:
-----------------------------------------------------------	------------------------

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Procurement Quantity (Units in Each)	384	41	150	24	43	67
Gross/Weapon System Cost (\$ in Millions)	287.538	5.342	19.784	3.760	4.374	8.134
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	287.538	5.342	19.784	3.760	4.374	8.134
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	287.538	5.342	19.784	3.760	4.374	8.134

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (\$ in Millions)	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Thousands)	748.797	130.293	131.893	156.667	101.721	121.403

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
Flyaway Cost																		
Recurring Cost																		
HIPPO ^(†)	318.846	525	167.394	104.878	41	4.300	100.000	179	17.900	98.250	24	2.358	100.000	43	4.300	99.373	67	6.658
Engineering Changes	-	-	14.300	-	-	0.150	-	-	0.035	-	-	0.030	-	-	-	-	-	0.030
System Engineering/ Program Management	-	-	51.151	-	-	0.242	-	-	0.857	-	-	0.358	-	-	-	-	-	0.358
System Test & Evaluation, Production	-	-	20.550	-	-	0.250	-	-	0.152	-	-	0.260	-	-	-	-	-	0.260
Training	-	-	1.500	-	-	0.050	-	-	0.471	-	-	-	-	-	-	-	-	-
Data	-	-	1.600	-	-	0.050	-	-	0.103	-	-	0.735	-	-	-	-	-	0.735
Support Equipment	-	-	13.903	-	-	0.050	-	-	-	-	-	-	-	-	-	-	-	-
Fielding	-	-	17.140	-	-	0.250	-	-	0.266	-	-	0.019	-	-	0.074	-	-	0.093
<i>Subtotal: Recurring Cost</i>	-	-	287.538	-	-	5.342	-	-	19.784	-	-	3.760	-	-	4.374	-	-	8.134
<i>Subtotal: Flyaway Cost</i>	-	-	287.538	-	-	5.342	-	-	19.784	-	-	3.760	-	-	4.374	-	-	8.134
Gross/Weapon System Cost	748.797	384	287.538	130.293	41	5.342	131.893	150	19.784	156.667	24	3.760	101.721	43	4.374	121.403	67	8.134

Remarks:

"In FY 2021, \$0.178 million in Reimbursable Manpower for Hippo has been realigned from Reimbursable Civilian Funding to Direct Operations and Maintenance. Program support costs have been accurately updated to reflect the realignments."

In FY 2021, 43 ea. Hippo systems will be procured and fielded with \$4.374 million OCO procurement funding which aligns with the unit cost of \$0.100 million.

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 30	P-1 Line Item Number / Title: 4700MA6000 / Distribution Systems, Petroleum & Water	Item Number / Title [DODIC]: R38100 / HIPPO WATER DISTRIBUTION SYSTEM

ID Code (A=Service Ready, B=Not Service Ready) : A	MDAP/MAIS Code:
-----------------------------------------------------------	------------------------

FY20 funded quantity (179 ea.) for Hippo increased as a result of better unit cost estimates.

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Army	Quantity	41	110	-	43	43
	Total Obligation Authority	5.342	14.773	-	4.374	4.374
ANG	Quantity	-	35	13	-	13
	Total Obligation Authority	-	4.352	2.034	-	2.034
AR	Quantity	-	5	11	-	11
	Total Obligation Authority	-	0.659	1.726	-	1.726
Total: Secondary Distribution	Quantity	41	150	24	43	67
	Total Obligation Authority	5.342	19.784	3.760	4.374	8.134

(t) indicates the presence of a P-5a

UNCLASSIFIED

Exhibit P-5a, Procurement History and Planning: PB 2021 Army							Date: February 2020					
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 30			P-1 Line Item Number / Title: 4700MA6000 / Distribution Systems, Petroleum & Water				Item Number / Title [DODIC]: R38100 / HIPPO WATER DISTRIBUTION SYSTEM					

Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty <i>(Each)</i>	Unit Cost <i>(\$ K)</i>	Specs Avail Now?	Date Revision Available	RFP Issue Date
HIPPO ^(†)		2019	TBD / TBD	C / FFP	TACOM	Aug 2019	Dec 2019	41	104.878	N		
HIPPO ^(†)		2020	TBD / TBD	C / FFP	TACOM	Nov 2019	Mar 2020	179	100.000	N		
HIPPO ^(†)		2021	TBD / TBD	C / FFP	TACOM	Nov 2020	Mar 2021	24	98.250	N		
HIPPO ^(†)	✓	2021	TBD / TBD	C / FFP	TACOM	Nov 2020	May 2021	43	100.000	N		

^(†) indicates the presence of a P-21

UNCLASSIFIED

Exhibit P-21, Production Schedule: PB 2021 Army															Date: February 2020														
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 30										P-1 Line Item Number / Title: 4700MA6000 / Distribution Systems, Petroleum & Water										Item Number / Title [DODIC]: R38100 / HIPPO WATER DISTRIBUTION SYSTEM									

Cost Elements <i>(Units in Each)</i>						Fiscal Year 2021												Fiscal Year 2022												B A L A N C E	
O C C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2020	BAL DUE AS OF 1 OCT	Calendar Year 2021												Calendar Year 2022												
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G		S E P
HIPPO																															
Prior Years Deliveries: 525																															
	1	2019	ARMY	41	41	0																							0		
	1	2020	ARMY	179	109	70	17	17	12	12	12																		0		
	1	2021	ARMY	24	0	24		A	-	-	-	-	12	12															0		
✓	1	2021	ARMY	43	0	43		A	-	-	-	-	-	-	12	12	12	7											0		
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	

UNCLASSIFIED

Exhibit P-21, Production Schedule: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 30		P-1 Line Item Number / Title: 4700MA6000 / Distribution Systems, Petroleum & Water
		Item Number / Title [DODIC]: R38100 / HIPPO WATER DISTRIBUTION SYSTEM

MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Month)			Procurement Leadtime (Months)							
		MSR For 2021	1-8-5 For 2021	MAX For 2021	Initial				Reorder			
					ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1	ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1
1	TBD - TBD	10	20	40	0	2	4	6	0	2	4	6

"A" in the Delivery Schedule indicates the Contract Award Date.

Note: Due to space limitations, quantities in the Exhibit P-21 delivery calendar are truncated and rounded based on the maximum quantity in the calendar as follows. If the maximum quantity is less than or equal to than 9,999, all quantities are shown as each. If the maximum quantity is between 10,000 and 999,999 all quantities are shown in thousands. If the maximum quantity is between 1,000,000 and 999,999,999 all quantities are shown in millions (rounded to the nearest thousand). If the maximum quantity is equal or greater than 1,000,000,000 all quantities are shown in billions (rounded to the nearest million).

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 30	P-1 Line Item Number / Title: 4700MA6000 / Distribution Systems, Petroleum & Water	Item Number / Title [DODIC]: R38101 / Unit Water Pod System

ID Code (A=Service Ready, B=Not Service Ready) : A	MDAP/MAIS Code:
-----------------------------------------------------------	------------------------

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Procurement Quantity (Units in Each)	109	41	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	95.912	4.321	-	-	-	-
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	95.912	4.321	-	-	-	-
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	95.912	4.321	-	-	-	-

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (\$ in Millions)	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Thousands)	879.927	105.390	-	-	-	-

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
Flyaway Cost																		
Recurring Cost																		
Camel II ^(†)	71.051	447	31.760	93.878	41	3.849	-	-	-	-	-	-	-	-	-	-	-	-
Engineering Changes	-	-	9.358	-	-	0.030	-	-	-	-	-	-	-	-	-	-	-	-
System Engineering/Program Management	-	-	10.954	-	-	0.206	-	-	-	-	-	-	-	-	-	-	-	-
System Test & Evaluation, Production	-	-	9.185	-	-	0.025	-	-	-	-	-	-	-	-	-	-	-	-
Training	-	-	7.650	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Data	-	-	9.630	-	-	0.050	-	-	-	-	-	-	-	-	-	-	-	-
Support Equipment	-	-	7.275	-	-	0.050	-	-	-	-	-	-	-	-	-	-	-	-
Fielding	-	-	10.100	-	-	0.111	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Recurring Cost</i>	-	-	95.912	-	-	4.321	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Flyaway Cost</i>	-	-	95.912	-	-	4.321	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost	879.927	109	95.912	105.390	41	4.321	-	-	-	-	-	-	-	-	-	-	-	-

Remarks:

FY22 funding is programmed for Water Bison on APE R38101 Unit Water Pod System (CAMEL II).

Secondary Distribution	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Army Quantity	27	-	-	-	-

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 30	P-1 Line Item Number / Title: 4700MA6000 / Distribution Systems, Petroleum & Water	Item Number / Title [DODIC]: R38101 / Unit Water Pod System
----------------------------------------------------------------------------------	----------------------------------------------------------------------------------------------	-----------------------------------------------------------------------

ID Code (A=Service Ready, B=Not Service Ready) : A **MDAP/MAIS Code:**

		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Secondary Distribution						
	Total Obligation Authority	2.585	-	-	-	-
ANG	Quantity	14	-	-	-	-
	Total Obligation Authority	1.736	-	-	-	-
Total:	Quantity	41	-	-	-	-
Secondary Distribution	Total Obligation Authority	4.321	-	-	-	-

(t) indicates the presence of a P-5a

UNCLASSIFIED

Exhibit P-5a, Procurement History and Planning: PB 2021 Army							Date: February 2020					
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 30			P-1 Line Item Number / Title: 4700MA6000 / Distribution Systems, Petroleum & Water				Item Number / Title [DODIC]: R38101 / Unit Water Pod System					
Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty (Each)	Unit Cost (\$ K)	Specs Avail Now?	Date Revision Available	RFP Issue Date
Camel II		2019	Choctaw Defense Manufacturing / McAlester, OK	SS / FFP	McAlester, OK	Dec 2018	Oct 2019	41	93.878	Y		

Remarks:
Procurement funding is on the Unit Water Pod System APE R38101 in FY22 as a placeholder for the "New Start" program Water Bison and Water Bison Lite.

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 40: Medical Equipment	P-1 Line Item Number / Title: 7500MN1000 / Combat Support Medical
--------------------------------------------------------------------------------------------------------------------------------------------------------------	-----------------------------------------------------------------------------

ID Code (A=Service Ready, B=Not Service Ready):	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
--------------------------------------------------------	-----------------------------------------------	--------------------------------------------

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	8,576	2,925	3,845	1,223	-	1,223	1,758	1,561	1,135	1,220	-	22,243
Gross/Weapon System Cost (<i>\$ in Millions</i>)	1,043.776	102.765	101.351	59.485	6.390	65.875	97.194	44.114	74.823	81.457	-	1,611.355
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	1,043.776	102.765	101.351	59.485	6.390	65.875	97.194	44.114	74.823	81.457	-	1,611.355
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	1,043.776	102.765	101.351	59.485	6.390	65.875	97.194	44.114	74.823	81.457	-	1,611.355

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Thousands</i>)	121.709	35.133	26.359	48.639	-	53.863	55.287	28.260	65.923	66.768	-	72.443

Description:

Combat Support Medical (CSM) supports the health of our Warfighters, allowing the force to compete and re-compete across the Army's Multi-Domain Operations. CSM represents the equipping component of Army operational medical and health service support capabilities. CSM promotes, improves, conserves, and maximizes mental and physical performance of Warfighters within the spectrum of military operations by fielding to operational units throughout the Army's Roles of Care (ROC) - from deployed Combat Medics and Expeditionary Forces, to Ground Ambulances, Forward Surgical Teams and fully operational Field Hospitals. CSM supports technologically advanced medical/surgical capabilities, medical materiel, and nonmedical equipment required in our Combat, Combat Support, and Combat Service Support force structure. The program also includes the Medical Evacuation (MEDEVAC) Mission Equipment Package (MEP) that provides critical upgrades to MEDEVAC helicopters to ensure the best medical capabilities are available to support the rapid evacuation of wounded Soldiers.

The MEDEVAC MEP program supports the Forward Looking Infra-Red Sensor (FLIR), Black Hawk Advanced MEDEVAC (BAM) window, and Interim MEDEVAC Mission Support System (IMMSS) Patient Handling System, and patient cabin heater within the MEP projects. This procurement maximizes the MEDEVAC availability for the Army's forward presence forces enabling them to compete and re-compete against near peer adversaries. The MEDEVAC MEP provides critical upgrades to MEDEVAC helicopters to ensure the best medical capabilities are available to support the rapid evacuation of wounded Soldiers. The MEDEVAC Mission Sensor FLIR ensures location of casualties and allows crews to exploit limited visibility environments to reduce hostile fire risk during life-saving missions. The BAM window is necessary for crews to ensure safety of aircraft in confined area and contested operations. The Interim Patient Handling System expedites the MEDEVAC Air Ambulance's ability to clear the battlefield of casualties and provides additional space to perform medical treatment. The medevac mission equipment package provides additional capabilities including cabin heat to prevent hypothermia and support temperature sensitive medical treatments and supplies.

CSM equipment sustains offensive, defensive, stability and support for Unified Land Operations across FORSCOM and all the COCOMs.

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
Army	Quantity	2,412	3,845	610	-	610	1,244	881	594	594
	Total Obligation Authority	70.504	101.351	51.521	6.390	57.911	84.456	34.481	66.641	71.735
ANG	Quantity	292	-	57	-	57	87	105	107	369
	Total Obligation Authority	27.333	-	1.052	-	1.052	0.906	1.010	1.044	2.559

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 40: Medical Equipment	P-1 Line Item Number / Title: 7500MN1000 / Combat Support Medical
-----------------------------------------------------------------------------------------------------------------------------------------------------------------	-----------------------------------------------------------------------------

ID Code (A=Service Ready, B=Not Service Ready):	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
--------------------------------------------------------	-----------------------------------------------	--------------------------------------------

Line Item MDAP/MAIS Code: N/A

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
AR	Quantity	221	-	556	-	556	427	575	434	257
	Total Obligation Authority	4.928	-	6.912	-	6.912	11.832	8.623	7.138	7.163
Total: Secondary Distribution	Quantity	2,925	3,845	1,223	-	1,223	1,758	1,561	1,135	1,220
	Total Obligation Authority	102.765	101.351	59.485	6.390	65.875	97.194	44.114	74.823	81.457

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity:
2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 40: Medical Equipment

P-1 Line Item Number / Title:
7500MN1000 / Combat Support Medical

ID Code (A=Service Ready, B=Not Service Ready): **Program Elements for Code B Items:** N/A **Other Related Program Elements:** N/A

Line Item MDAP/MAIS Code: N/A

Exhibits Schedule					Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-5	G13010 / MEDEVAC Misson Equipment Package (MEP)	P-5a			280 / 126.513	34 / 26.359	- / 1.109	- / -	- / -	- / -
P-5	MB1100 / FIELD MEDICAL EQUIPMENT - Medical ASIOE	P-5a			8,296 / 917.263	2,891 / 76.406	3,845 / 100.242	1,223 / 59.485	- / 6.390	1,223 / 65.875
P-40	Total Gross/Weapon System Cost				8,576 / 1,043.776	2,925 / 102.765	3,845 / 101.351	1,223 / 59.485	- / 6.390	1,223 / 65.875

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

Justification:

FY 21 Base procurement dollars in the amount of \$65.937 million (MB1100 Field Medical Equipment) supports the procurement of medical equipment for the Army's Regional Training Site Medical Centers (RTS-Meds), as well as the medical equipment for 213 units supporting Army's Multi-Domain Operations, including the European Deterrence Initiative, across medical Roles of Care (ROC) 1 through 3. 136 units in ROC1, e.g. Combat Medics and Battalion Aid Stations; 25 units in ROC2, e.g. Forward Resuscitative Surgical Teams; 18 units in ROC3, e.g. Field Hospitals; as well as 34 units with other medical requirements, e.g. Forward Presence and Expeditionary Forces.

In accordance with Section 1815 of the FY 2008 National Defense Authorization Act (P.L. 110-181), this item is necessary for use by the active and reserve components of the Armed Forces for homeland defense missions, domestic emergency responses, and providing military support to civil authorities.

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 40	P-1 Line Item Number / Title: 7500MN1000 / Combat Support Medical	Item Number / Title [DODIC]: G13010 / MEDEVAC Misson Equipment Package (MEP)

ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:
---------------------------------------------------------	------------------------

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Procurement Quantity (Units in Each)	280	34	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	126.513	26.359	1.109	-	-	-
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	126.513	26.359	1.109	-	-	-
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	126.513	26.359	1.109	-	-	-

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (\$ in Millions)	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Thousands)	451.832	775.265	-	-	-	-

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
Flyaway Cost																		
Recurring Cost																		
Medical Mission Sensor FLIR ^(†)	332.791	89	29.618	900.083	12	10.801	-	-	-	-	-	-	-	-	-	-	-	-
Interim Patient Handling System (IMMSS) ^(†)	1,041.881	93	96.895	707.182	22	15.558	-	-	-	-	-	-	-	-	-	-	-	-
Black Hawk Advanced Medevac Window (BAM Window) ^(†)	-	-	-	-	-	-	24.644	45	1.109	-	-	-	-	-	-	-	-	-
<i>Subtotal: Recurring Cost</i>	-	-	126.513	-	-	26.359	-	-	1.109	-	-	-	-	-	-	-	-	-
<i>Subtotal: Flyaway Cost</i>	-	-	126.513	-	-	26.359	-	-	1.109	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost	451.832	280	126.513	775.265	34	26.359	-	-	1.109	-	-	-	-	-	-	-	-	-

Remarks:

The program consists of subsystems installed on recapitalized MEDEVAC UH-60A/L/V Black Hawk helicopters. These subsystems include the Interim MEDEVAC Mission Support System (IMMSS) patient handling system, the Medical Mission Sensor (MMS) FLIR, BAM window, and the cabin heater for patients. These aircraft provide the required operational capabilities for aeromedical evacuation, and are utilized throughout the MEDEVAC fleet. The IMMSS includes seat pallets, seats to support medical attendees and patients, interior components, and a litter lift system.

The MEDEVAC Mission Sensor (MMS) is a FLIR sensor that will be used as a patient search and rescue sensor. MMS is also critical for the continuous visual capability during night and adverse weather conditions. The BAM window is necessary for crews to ensure safety of aircraft in confined areas and contested operations.

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 40	P-1 Line Item Number / Title: 7500MN1000 / Combat Support Medical	Item Number / Title [DODIC]: G13010 / MEDEVAC Misson Equipment Package (MEP)

ID Code (A=Service Ready, B=Not Service Ready) : **MDAP/MAIS Code:**
 The patient heating system is a component item for the MEDEVAC MEP, it does not meet the threshold for a LIN, and therefore a LIN was not requested.

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Army	Quantity	12	-	-	-	-
	Total Obligation Authority	16.174	1.109	-	-	-
ANG	Quantity	22	-	-	-	-
	Total Obligation Authority	10.185	-	-	-	-
Total:	Quantity	34	-	-	-	-
Secondary Distribution	Total Obligation Authority	26.359	1.109	-	-	-

(t) indicates the presence of a P-5a

UNCLASSIFIED

Exhibit P-5a, Procurement History and Planning: PB 2021 Army							Date: February 2020				
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 40			P-1 Line Item Number / Title: 7500MN1000 / Combat Support Medical				Item Number / Title [DODIC]: G13010 / MEDEVAC Mission Equipment Package (MEP)				

Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty <i>(Each)</i>	Unit Cost <i>(\$ K)</i>	Specs Avail Now?	Date Revision Available	RFP Issue Date
Medical Mission Sensor FLIR		2018	FLIR Systems, Inc. / Portland Oregon	SS / FFP	USACC, Redstone Arsenal, AL	Oct 2017	Apr 2018	7	916.000	N		
Interim Patient Handling System (IMSS)		2018	Air Methods Corp / Denver, Colorado	SS / FFP	USACC, Redstone Arsenal, AL	Oct 2017	Jan 2018	14	669.071	N		
Black Hawk Advanced Medevac Window (BAM Window)		2018	Various / Various	SS / FFP	USACC, Redstone Arsenal, AL	Oct 2017	Jan 2018	0	22.644	N		

Remarks:
 The Medical Evacuation (MEDEVAC) Mission Equipment Package (MEP) provides critical upgrades to MEDEVAC helicopters to ensure the best medical capabilities are available to support the rapid evacuation of wounded Soldiers. The program consists of two subsystems installed on recapitalized MEDEVAC UH-60A/L/V Black Hawk helicopters. These subsystems include the Interim MEDEVAC Mission Support System (IMSS) patient handling system, the Medical Mission Sensor (MMS) Forward Looking Infrared (FLIR), Black Hawk Advanced MEDEVAC (BAM) window, and the Maven heater for patients. These aircraft provide the required operational capabilities for aeromedical evacuation, and are utilized throughout the MEDEVAC fleet. The Interim MEDEVAC Mission Support System (IMSS) includes seat pallets, seats, interior components, and a litter lift system. This new BAM window will replace the older bubble window on the cargo door, and the Internal Communications System (ICS) Relocation Kit - the ICS must be located further to the rear of the helicopter to accommodate the new interior design.

The MEDEVAC Mission Sensor (MMS) is a Forward Looking Infra-Red (FLIR) sensor that will be used as a patient search and rescue sensor. MMS is also critical for the continuous visual capability during night and adverse weather conditions.

The patient heating system is a component item for the MEDEVAC MEP, it does not meet the threshold for a LIN, therefore a LIN was not requested.

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 40	P-1 Line Item Number / Title: 7500MN1000 / Combat Support Medical	Item Number / Title [DODIC]: MB1100 / FIELD MEDICAL EQUIPMENT - Medical ASIOE

ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:
---------------------------------------------------------	------------------------

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Procurement Quantity (Units in Each)	8,296	2,891	3,845	1,223	-	1,223
Gross/Weapon System Cost (\$ in Millions)	917.263	76.406	100.242	59.485	6.390	65.875
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	917.263	76.406	100.242	59.485	6.390	65.875
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	917.263	76.406	100.242	59.485	6.390	65.875

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (\$ in Millions)	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Thousands)	110.567	26.429	26.071	48.639	-	53.863

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
Flyaway Cost																		
Recurring Cost																		
Laboratory science Equipment ^(†)	39.556	1,277	50.513	22.426	296	6.638	109.062	97	10.579	26.283	145	3.811	-	-	-	26.283	145	3.811
Ambulatory Care Equipment ^(†)	17.847	9,430	168.297	31.024	1,735	53.827	18.191	3,330	60.576	5.687	2,285	12.995	5.685	1,124	6.390	5.686	3,409	19.385
Dental Equipment ^(†)	3.088	58,282	179.975	124.600	15	1.869	128.571	21	2.700	25.000	37	0.925	-	-	-	25.000	37	0.925
Ophthalmology/optometry Equipment	713.294	17	12.126	-	-	-	1,076.250	8	8.610	7.000	15	0.105	-	-	-	7.000	15	0.105
Surgical Equipment ^(†)	48.881	2,056	100.499	12.500	14	0.175	13.393	112	1.500	80.000	7	0.560	-	-	-	80.000	7	0.560
Nursing Equipment	137.948	639	88.149	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Veterinary Equipment ^(†)	125.166	181	22.655	23.000	2	0.046	97.125	16	1.554	139.024	41	5.700	-	-	-	139.024	41	5.700
Diagnostic Imaging Equipment ^(†)	1,055.786	215	226.994	55.000	35	1.925	70.811	37	2.620	45.111	72	3.248	-	-	-	45.111	72	3.248
Therapy/Treatment ^(†)	7.385	1,355	10.007	12.500	12	0.150	20.500	4	0.082	80.000	7	0.560	-	-	-	80.000	7	0.560
Sterilization ^(†)	97.694	62	6.057	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Environmental (Chemical)	14.364	275	3.950	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Environmental (Water) ^(†)	6.939	2,249	15.606	32.000	27	0.864	15.000	17	0.255	37.000	13	0.481	-	-	-	37.000	13	0.481

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 40	P-1 Line Item Number / Title: 7500MN1000 / Combat Support Medical	Item Number / Title [DODIC]: MB1100 / FIELD MEDICAL EQUIPMENT - Medical ASIOE
ID Code (A=Service Ready, B=Not Service Ready) :		MDAP/MAIS Code:

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
TMDE (Test, Measurement, Diagnostic Eq) ^(†)	52.641	273	14.371	62.120	133	8.262	64.314	159	10.226	4.563	229	1.045	-	-	-	4.563	229	1.045
EVAC/AREA SPT ^(†)	15.797	271	4.281	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HOSPITAL ^(†)	111.153	124	13.783	132.500	20	2.650	110.000	14	1.540	137.500	8	1.100	-	-	-	137.500	8	1.100
MED OXYGEN	-	-	-	-	-	-	-	-	-	139.645	203	28.348	-	-	-	139.645	203	28.348
PHARM	-	-	-	-	-	-	-	-	-	75.875	8	0.607	-	-	-	75.875	8	0.607
<i>Subtotal: Recurring Cost</i>	-	-	917.263	-	-	76.406	-	-	100.242	-	-	59.485	-	-	6.390	-	-	65.875
<i>Subtotal: Flyaway Cost</i>	-	-	917.263	-	-	76.406	-	-	100.242	-	-	59.485	-	-	6.390	-	-	65.875
Gross/Weapon System Cost	110.567	8,296	917.263	26.429	2,891	76.406	26.071	3,845	100.242	48.639	1,223	59.485	-	-	6.390	53.863	1,223	65.875

Remarks:
test

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Army	Quantity	2,400	3,845	610	-	610
	Total Obligation Authority	54.330	100.242	51.521	6.390	57.911
ANG	Quantity	270	-	57	-	57
	Total Obligation Authority	17.148	-	1.052	-	1.052
AR	Quantity	221	-	556	-	556
	Total Obligation Authority	4.928	-	6.912	-	6.912
Total: Secondary Distribution	Quantity	2,891	3,845	1,223	-	1,223
	Total Obligation Authority	76.406	100.242	59.485	6.390	65.875

^(†) indicates the presence of a P-5a

UNCLASSIFIED

Exhibit P-5a, Procurement History and Planning: PB 2021 Army							Date: February 2020					
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 40			P-1 Line Item Number / Title: 7500MN1000 / Combat Support Medical				Item Number / Title [DODIC]: MB1100 / FIELD MEDICAL EQUIPMENT - Medical ASIOE					

Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty <i>(Each)</i>	Unit Cost <i>(\$ K)</i>	Specs Avail Now?	Date Revision Available	RFP Issue Date
Laboratory science Equipment		2018	Various / Various	Various	various	Aug 2017	Jan 2018	233	28.000	Y		
Ambulatory Care Equipment		2018	Various / Various	Various	various	Aug 2017	Jan 2018	1,560	20.385	Y		
Dental Equipment		2018	Various / Various	Various	various	Aug 2017	Jan 2018	39	98.718	Y		
Surgical Equipment		2018	Various / Various	Various	various	Aug 2017	Jan 2018	472	25.000	Y		
Veterinary Equipment		2018	Various / Various	Various	various	Aug 2017	Jan 2018	23	121.000	Y		
Diagnostic Imaging Equipment		2018	Various / Various	Various	various	Aug 2017	Jan 2018	85	41.000	Y		
Therapy/Treatment		2018	Various / Various	Various	various	Aug 2017	Aug 2018	12	70.000	Y		
Sterilization		2018	Various / Various	Various	various	Aug 2017	Jan 2018	0	0.000	Y		
Environmental (Water)		2017	Various / Various	Various	various	Sep 2017	Sep 2017	167	4.000	N		
TMDE (Test, Measurement, Diagnostic Eq)		2018	Various / Various	Various	various	Nov 2017	Jan 2018	166	46.000	Y		
EVAC/AREA SPT		2018	Various / Various	Various	various	Nov 2017	Jan 2018	0	0.000	Y		
HOSPITAL		2018	Various / Various	Various	various	Nov 2017	Jan 2018	87	125.000	Y		

Remarks:
Equipment is Commercial Off The Shelf (COTS) /Government Off the Shelf (GOTS), therefore is ordered on an as needed basis to manage program most effectively.

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 45: Maintenance Equipment	P-1 Line Item Number / Title: 0639G05301 / Mobile Maintenance Equipment Systems
------------------------------------------------------------------------------------------------------------------------------------------------------------------	-------------------------------------------------------------------------------------------

ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
----------------------------------------------------------	-----------------------------------------------	--------------------------------------------

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	133	74	401	101	24	125	111	-	-	-	-	844
Gross/Weapon System Cost (<i>\$ in Millions</i>)	350.101	34.479	140.053	40.337	7.769	48.106	43.965	-	-	-	-	616.704
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	350.101	34.479	140.053	40.337	7.769	48.106	43.965	-	-	-	-	616.704
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	350.101	34.479	140.053	40.337	7.769	48.106	43.965	-	-	-	-	616.704

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Thousands</i>)	2,632.338	465.932	349.259	399.376	323.708	384.848	396.081	-	-	-	-	730.692

Description:

The Mobile Maintenance Equipment Systems (MMES) enables readiness of combat and combat support systems through a system of systems approach to provide two-level maintenance capability to the Warfighter. The MMES significantly increases the capability of forward maintenance units to conduct necessary battlefield repairs supporting Soldier Lethality, Next Generation Combat Vehicle (NGCV) and Long Range Precision Fires (LRPF), as well as, addressing Gaps 10 and 17. Two-level maintenance is critical to the operation and readiness of current and next generation combat vehicles. Eight inter-connected maintenance systems distributed throughout the Army at multiple levels and echelons provide a holistic repair capability in all environments. This approach meets the Army's two-level maintenance philosophy and supports the current force while also providing modular configurations to meet the specific needs of the Army maintainer in today's transforming environment. The MMES family of systems includes Metal Working and Machining Shop Set, Fire Suppression Refill System, Armament Repair Shop Set, Hydraulic Systems Test and Repair Unit, Shop Equipment Welding, Shop Equipment Contact Maintenance, Forward Repair System, and Standard Automotive Tool Set. The Resource Summary prior year dollar/quantity reflects active programs and does not include inactive programs that were funded under MMES.

The Metal Working and Machining Shop Set (MWMSS) containerizes and consolidates numerous metal working capabilities into one expeditionary system for the Allied Trades Military Occupational Specialty (MOS) 91E and 914 Warrant Officers. The MWMSS impacts three HIGH RISK gaps enabling rapid repair at the point-of-need through fabrication using additive (3D printers) and subtractive manufacturing capabilities supporting Soldier Lethality, NGCV and LRPF, as well as, addressing Gaps 10 and 17. The MWMSS provides 75% of Brigade Combat Team (BCT) metal working fabrication capability to support ALL combat platforms and 100% of Additive Manufacturing (AM) capability in BCT formations. The MWMSS provides a far forward capability to fabricate and develop repair parts enabling Battle Damage Assessment and Repair (BDAR) options during combat operations. The MWMSS provides commanders real-time, on-demand fabrication and repairs to equipment, components, and parts by fabricating, cutting, welding, and machining. The MWMSS assembles and packages a tool load configuration to replace multiple obsolete Line Item Numbers (LINs) without losing any capability while reducing the logistics footprint. The MWMSS consists of a Type I and Type II shelter. Type I contains a Computer Numeric Controlled(CNC) Lathe, Mill Drill, Multi-Process Welding, Thermal Cutting equipment, Air-Arc Gouging, air compressor, Mobile Electric Power (MEP) generator for shop power, Environmental Control Unit (ECU), and an assortment of hand/air tools. Type II augments Type I and contains a CNC Milling Machine, Plasma table, additive manufacturing, ECU, and an assortment of hand/air tools. The MWMSS is transportable by standard ground Palatized Load Handling System/Load Handling System (PLS/LHS), air (C-130), rail and sea assets. MWMSS is being produced organically by the Joint Manufacturing Technology Center in Rock Island, IL. Army Acquisition Objective (AAO) of MWMSS is 298 Type I and 181 Type II.

The Fire Suppression Refill System (FSRS) fills a gap in the Army as the only deployable refill system able to produce Nitrogen and refill all combat platform Fire Suppression and Nitrogen bottles, supporting Gaps 10 & 17. The FSRS supports combat systems (Abrams, Joint Lightweight Tactical Vehicle (JLTV), Stryker, Ground Mobility Vehicle (GMV), Night Vision Device (NVD), and Paladin). Comprised of a modular, flexible, standardized fire suppression refill station consisting of a transportable ISO 8x8x20 container with an integrated Environmental Control Unit (ECU). The FSRS is an integrated unit equipped for safe performance of refilling fire suppression bottles and systems. The FSRS consists of an enclosure containing the tools and equipment needed to fulfill the required refill tasks and a trailer for transportation. These systems include both man portable systems as well as the fire suppression systems that can be found in military vehicles. The FSRS operates in every Support Maintenance Company (SMC) and

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2021 Army	Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 45: Maintenance Equipment	P-1 Line Item Number / Title: 0639G05301 / Mobile Maintenance Equipment Systems

ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
----------------------------------------------------------	-----------------------------------------------	--------------------------------------------

Line Item MDAP/MAIS Code: N/A

Field Maintenance Company (FMC), Ground Support Sections. The FSRS is deployed and employed in all geographical locations and environments where the U.S. Army operates. FSRS is being produced organically by the Joint Manufacturing Technology Center in Rock Island, IL. Army Acquisition Objective (AAO) of FSRS is 171 systems.

The Armament Repair Shop Set (ARSS) dramatically increases the Army's ability to execute maintenance and repair forward on all weapons and armament systems from Small Arms to towed artillery and howitzers, and directly supporting Soldier Lethality, NGCV and LRPF, as well as, addressing Gaps 10 and 17. Provides the newest technology, such as the Digital Borescope/Gun Bore Camera, that allows the maintainer to inspect, document, and gauge the inside surfaces of mortar and cannon tubes, reducing gauging time and micrometer mistakes. The ARSS significantly improves on-site maintenance capability with increased proficiency and deployability. The ARSS provides a field/sustainment level maintenance and repair support platform for armament weapon systems to support units across the full spectrum of military operations. By providing on-system maintenance repairs to weapon systems and/or components as far forward as possible on the battlefield, ARSS enables major combat systems to quickly return to the fight, provides technological advancements and professional-grade tools with lifetime warranties, which will bring a savings to the Army for many years. The ARSS consolidates four Line Item Numbers (LINs) to one and equips our forces with the most current and accurate tools to complete the mission while performing maintenance on the latest technologically advanced weaponry from small arms to field artillery. The consolidation of the four LINs to one results in a reduction from four tactical vehicles required to transport the individual shop sets to just one tactical vehicle to transport the ARSS. In addition, the ARSS eliminates a 51% tool redundancy across the previous four armament shop sets while reducing 43% of the armament repair tools in the field. The ARSS is fielded to the Infantry Brigade Combat Teams (IBCTs), Heavy Brigade Combat Teams (HBCTs), Stryker Brigade Combat Teams (SBCTs), Support Maintenance Companies (SMCs), Component Repair Companies (CRCs), and Forward Support Companies (FSCs). ARSS is being produced organically by the Tobyhanna Army Depot, in Pennsylvania. AAO of ARSS is 995.

The Next Generation Shop Equipment Welding Trailer (NG SEW) provides a full spectrum of welding capabilities throughout the battlefield, allowing repairs to be performed in all weather, climatic and light conditions. MIG welding, and plasma cutting supporting Gaps 10 & 17. The NG SEW supports all combat systems. The NG SEW units provides the Army with rapidly deployable welding and maintenance capabilities to be used and operated in harsh environments, which are capable of battle damage repair. The system is an integrated unit, using custom cabinets to house and secure the system equipment. The equipment consists of all the major welding processes, including: Shielded Metal Arc Welding (SMAW), commonly referred to as Stick Welding; Gas Metal Arc Welding (GMAW), commonly referred to as Metal Inert Gas (MIG); Gas Tungsten Arc Welding (GTAW), commonly referred to as Tungsten Inert Gas (TIG); Flux Cored Arc Welding (FCAW); and Gas Welding with oxygen and acetylene. The NG SEW's metal cutting processes include: the angle grinder, reciprocating saw, hack saw, oxygen, acetylene, and plasma. The NG SEW is suitable for rapid deployment, employment, and re-deployment, with minimal preparation, and is able to operate in unimproved areas and all applicable environmental conditions. The NG SEW is suitable for towing by the Army's family of light medium tactical vehicles (FMTV). The NG SEW unit receives electrical power from a 15 kW Army Standard generator, and it powers the electrical equipment while in operational mode. NG SEW is being produced organically by the Joint Manufacturing Technology Center in Rock Island, IL. Approved Acquisition Objective (AAO) is 513.

The Next Generation Shop Equipment Contact Maintenance (NG SECM) is a fabricated enclosure mounted on a High Mobility Multipurpose Wheeled Vehicle (HMMWV) with 2 trained maintainers that conducts immediate field maintenance. The NG SECM is a first responder to battle/Improvised Explosive Device damaged tracked, wheeled, and ground support equipment and provides immediate field level maintenance. The NG SECM's mobility, agility, and maintenance capability is a combat maintenance multiplier by getting equipment back into the fight as far forward as possible and contains required common tools and compressed air to enable maintainers the ability to provide on-site maintenance forward, freeing up recovery assets. NG SECM supports Army Gaps #10 (Tactical and Sustainment Mobility), Gap #17 (Div Materiel or Higher Echelon Main). NG SECM is being produced organically by the Joint Manufacturing Technology Center in Rock Island, IL. Approved Acquisition Objective (AAO) is 3301.

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
Army	Quantity	29	309	65	24	89	48	-	-	-
	Total Obligation Authority	25.781	110.126	21.495	7.769	29.264	21.925	-	-	-
ANG	Quantity	39	79	26	-	26	49	-	-	-
	Total Obligation Authority	6.311	25.499	13.064	-	13.064	17.016	-	-	-
AR	Quantity	6	13	10	-	10	14	-	-	-
	Total Obligation Authority	2.387	4.428	5.778	-	5.778	5.024	-	-	-
Total:	Quantity	74	401	101	24	125	111	-	-	-

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 45: Maintenance Equipment	P-1 Line Item Number / Title: 0639G05301 / Mobile Maintenance Equipment Systems
------------------------------------------------------------------------------------------------------------------------------------------------------------------	-------------------------------------------------------------------------------------------

ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
----------------------------------------------------------	-----------------------------------------------	--------------------------------------------

Line Item MDAP/MAIS Code: N/A

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
Secondary Distribution	Total Obligation Authority	34.479	140.053	40.337	7.769	48.106	43.965	-	-	-

--	--	--	--	--	--	--	--	--	--	--

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity:
2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 45: Maintenance Equipment **P-1 Line Item Number / Title:**
0639G05301 / Mobile Maintenance Equipment Systems

ID Code (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** N/A **Other Related Program Elements:** N/A

Line Item MDAP/MAIS Code: N/A

Exhibits Schedule					Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-5	G05315 / METAL WORKING AND MACHING SHOP SET (MWMSS)	P-5a, P-21	A		60 / 52.244	28 / 13.498	33 / 15.660	35 / 16.788	1 / 0.431	36 / 17.219
P-5	G05320 / FIRE SUPPRESSION REFILL SYSTEM (FSRS)	P-5a	A		4 / 20.544	15 / 6.557	27 / 8.370	7 / 2.778	- / -	7 / 2.778
P-5	G05330 / ARMAMENT REPAIR SHOP SET (ARSS)	P-5a, P-21	A		59 / 57.233	31 / 14.424	61 / 22.829	59 / 20.771	23 / 7.338	82 / 28.109
P-5	M62700 / Shop Equipment, Welding (SEW)	P-5a	A		10 / 220.080	0 / -	280 / 93.194	- / -	- / -	- / -
P-40	Total Gross/Weapon System Cost				133 / 350.101	74 / 34.479	401 / 140.053	101 / 40.337	24 / 7.769	125 / 48.106

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.
Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

Justification:
The Mobile Maintenance Equipment Systems are critical maintenance multipliers for combat equipment that mobilizes mechanics and maintenance equipment to repair damaged light, medium, and heavy Combat and Combat Support systems in the Brigade Combat Teams (BCTs) and Combat Aviation Brigades (CABs) as close to the front lines as is safely possible. The MMES significantly increases the capability of forward maintenance units to conduct necessary battlefield repairs supporting Soldier Lethality, NGCV and LRPF, as well as, addressing Gaps 10 and 17. With the MMES, systems and Soldiers do not have to wait for recovery vehicles to arrive and remove the system from the battlefield, thus reducing risk to the soldiers and equipment.

Fire Suppression Refill System (FSRS): FY21 Base procurement dollars in the amount of \$2.778 million supports 7 FSRS to be fielded to Armored Brigade Combat Teams and Stryker Brigade Combat Teams and Support Maintenance Companies (SMC).

The Fire Suppression Refill System (FSRS) fills a gap in the Army as the only deployable refill system able to produce Nitrogen and refill all combat platform Fire Suppression and Nitrogen bottles, supporting Gaps 10 & 17.

Metal Working and Machining Shop Set (MWMSS): FY21 Base procurement dollars in the amount of \$16.788 million supports 35 MWMSS modules (18 Type I and 17 Type II) and FY21 OCO procurement dollars in the amount of \$0.431 million supports 1 MWMSS Type I to be fielded to Active units. MWMSS represents a significant upgrade in technology and replaces several outdated LINs.

The MWMSS impacts three HIGH RISK gaps enabling rapid repair at the point-of-need through fabrication using additive (3D printers) and subtractive manufacturing capabilities supporting Soldier Lethality, Next Generation Combat Vehicle (NGCV) and Long Range Precision Fires (LRPF), as well as, addressing Gaps 10 and 17.

Armament Repair Shop Set (ARSS): FY21 Base procurement dollars in the amount of \$20.771 million supports 59 ARSS and FY21 OCO procurement dollars in the amount of \$7.338M to support 23 ARSS to be fielded to the Infantry Brigade Combat Teams (IBCTs), Heavy Brigade Combat Teams (HBCTs), Stryker Brigade Combat Teams (SBCTs), Support Maintenance Companies (SMCs), Component Repair Companies (CRCs), and Forward Support Companies (FSCs). ARSS replaces six Line Item Numbers (LINs) and provides the capability for forward maintenance for multiple weapon systems.

The Armament Repair Shop Set (ARSS) dramatically increases the Army's ability to execute maintenance and repair forward on all weapons and armament systems from Small Arms to towed artillery and howitzers, and directly supporting Soldier Lethality, NGCV and LRPF, as well as, addressing Gaps 10 and 17.

Next Generation Shop Equipment Welder (NG SEW): FY21 Base procurement dollars are zero. MIG welding, and plasma cutting supporting Gaps 10 & 17. The NG SEW supports all combat systems.

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 45: Maintenance Equipment		P-1 Line Item Number / Title: 0639G05301 / Mobile Maintenance Equipment Systems
ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
Line Item MDAP/MAIS Code: N/A		
Next Generation Shop Equipment Contact Maintenance (NG SECM): FY21 Base procurement dollars are zero. A congressional add of \$85M in FY20 for NG SECM was put in the SEW P-form and is annotated as a separate cost element for SECM.		
In accordance with Section 1815 of the FY 2008 National Defense Authorization Act (P.L. 110-181), these item are necessary for use by the active and reserve components of the Armed Forces for homeland defense missions, domestic emergency responses, and providing military support to civil authorities.		

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army													Date: February 2020					
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 45						P-1 Line Item Number / Title: 0639G05301 / Mobile Maintenance Equipment Systems						Item Number / Title [DODIC]: G05315 / METAL WORKING AND MACHING SHOP SET (MWMSS)						
ID Code (A=Service Ready, B=Not Service Ready) : A									MDAP/MAIS Code:									
Resource Summary				Prior Years		FY 2019		FY 2020		FY 2021 Base		FY 2021 OCO		FY 2021 Total				
Procurement Quantity (Units in Each)				60		28		33		35		1		36				
Gross/Weapon System Cost (\$ in Millions)				52.244		13.498		15.660		16.788		0.431		17.219				
Less PY Advance Procurement (\$ in Millions)				-		-		-		-		-		-				
Net Procurement (P-1) (\$ in Millions)				52.244		13.498		15.660		16.788		0.431		17.219				
Plus CY Advance Procurement (\$ in Millions)				-		-		-		-		-		-				
Total Obligation Authority (\$ in Millions)				52.244		13.498		15.660		16.788		0.431		17.219				
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>																		
Initial Spares (\$ in Millions)				-		-		-		-		-		-		-		
Gross/Weapon System Unit Cost (\$ in Thousands)				870.733		482.071		474.545		479.657		431.000		478.306				
Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.																		
Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
Flyaway Cost																		
Recurring Cost																		
Engineering Support	-	-	1.710	-	-	0.043	-	-	0.150	-	-	0.153	-	-	-	-	-	0.153
Quality Assurance Support	-	-	1.631	-	-	0.096	-	-	0.102	-	-	0.184	-	-	-	-	-	0.184
Engineer Change Proposal	-	-	0.749	-	-	-	-	-	0.720	-	-	0.200	-	-	-	-	-	0.200
<i>Subtotal: Recurring Cost</i>	-	-	4.090	-	-	0.139	-	-	0.972	-	-	0.537	-	-	-	-	-	0.537
<i>Subtotal: Flyaway Cost</i>	-	-	4.090	-	-	0.139	-	-	0.972	-	-	0.537	-	-	-	-	-	0.537
Hardware Cost																		
Recurring Cost																		
Metal Working Machining Shop Set Type I ^(†)	394.000	60	23.640	411.000	22	9.042	430.000	17	7.310	431.000	18	7.758	431.000	1	0.431	431.000	19	8.189
Metal Working Machining Shop Set Type II ^(†)	304.000	58	17.632	320.000	6	1.920	315.000	16	5.040	321.000	17	5.457	-	-	-	321.000	17	5.457
<i>Subtotal: Recurring Cost</i>	-	-	41.272	-	-	10.962	-	-	12.350	-	-	13.215	-	-	0.431	-	-	13.646
<i>Subtotal: Hardware Cost</i>	-	-	41.272	-	-	10.962	-	-	12.350	-	-	13.215	-	-	0.431	-	-	13.646
Package Fielding Cost																		
Recurring Cost																		
Fielding Support	-	-	1.290	-	-	0.551	-	-	0.493	-	-	0.856	-	-	-	-	-	0.856

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 45	P-1 Line Item Number / Title: 0639G05301 / Mobile Maintenance Equipment Systems	Item Number / Title [DODIC]: G05315 / METAL WORKING AND MACHING SHOP SET (MWMSS)
ID Code (A=Service Ready, B=Not Service Ready) : A		MDAP/MAIS Code:

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
Transportation	-	-	0.815	-	-	0.090	-	-	0.198	-	-	0.114	-	-	-	-	-	0.114
Tech Manuals	-	-	0.370	-	-	0.004	-	-	0.900	-	-	1.000	-	-	-	-	-	1.000
<i>Subtotal: Recurring Cost</i>	-	-	2.475	-	-	0.645	-	-	1.591	-	-	1.970	-	-	-	-	-	1.970
<i>Subtotal: Package Fielding Cost</i>	-	-	2.475	-	-	0.645	-	-	1.591	-	-	1.970	-	-	-	-	-	1.970
Logistics Cost																		
Recurring Cost																		
Log support	-	-	-	-	-	0.526	-	-	0.331	-	-	0.417	-	-	-	-	-	0.417
<i>Subtotal: Recurring Cost</i>	-	-	-	-	-	0.526	-	-	0.331	-	-	0.417	-	-	-	-	-	0.417
<i>Subtotal: Logistics Cost</i>	-	-	-	-	-	0.526	-	-	0.331	-	-	0.417	-	-	-	-	-	0.417
Support - Program Management Cost																		
Government Management	-	-	4.407	-	-	1.226	-	-	0.416	-	-	0.649	-	-	-	-	-	0.649
<i>Subtotal: Support - Program Management Cost</i>	-	-	4.407	-	-	1.226	-	-	0.416	-	-	0.649	-	-	-	-	-	0.649
Gross/Weapon System Cost	870.733	60	52.244	482.071	28	13.498	474.545	33	15.660	479.657	35	16.788	431.000	1	0.431	478.306	36	17.219

Remarks:

FY19 actual program is inaccurate and should be \$12,577K therefore, Government Management should be \$305K.

Resource Summary section reflects erroneous quantities for Prior Years. . P-5 cost element section reflects actual quantities procured in Prior Years (118).

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Army	Quantity	11	15	20	1	21
	Total Obligation Authority	9.002	7.219	10.750	0.431	11.181
ANG	Quantity	14	14	11	-	11
	Total Obligation Authority	3.264	6.839	4.436	-	4.436
AR	Quantity	3	4	4	-	4
	Total Obligation Authority	1.232	1.602	1.602	-	1.602
Total: Secondary Distribution	Quantity	28	33	35	1	36
	Total Obligation Authority	13.498	15.660	16.788	0.431	17.219

(†) indicates the presence of a P-5a

UNCLASSIFIED

Exhibit P-5a, Procurement History and Planning: PB 2021 Army							Date: February 2020				
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 45			P-1 Line Item Number / Title: 0639G05301 / Mobile Maintenance Equipment Systems				Item Number / Title [DODIC]: G05315 / METAL WORKING AND MACHING SHOP SET (MWMSS)				

Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty (Each)	Unit Cost (\$ K)	Specs Avail Now?	Date Revision Available	RFP Issue Date
Metal Working Machining Shop Set Type I ^(†)		2019	JMTC / Rock Island	MIPR	JMTC, Rock Island, IL	Nov 2018	Apr 2019	22	411.000	Y		
Metal Working Machining Shop Set Type I ^(†)		2020	JMTC / Rock Island	MIPR	JMTC, Rock Island, IL	Nov 2019	Apr 2020	17	430.000	Y		
Metal Working Machining Shop Set Type I ^(†)		2021	JMTC / Rock Island	MIPR	JMTC, Rock Island IL	Nov 2020	Apr 2021	18	431.000	Y		
Metal Working Machining Shop Set Type I ^(†)	✓	2021	JMTC / Rock Island	MIPR	JMTC, Rock Island IL	Nov 2020	Apr 2021	1	431.000	Y		
Metal Working Machining Shop Set Type II ^(†)		2019	JMTC / Rock Island	MIPR	JMTC, Rock Island, IL	Nov 2018	Apr 2019	6	320.000	Y		
Metal Working Machining Shop Set Type II ^(†)		2020	JMTC / Rock Island	MIPR	JMTC, Rock Island, IL	Nov 2019	Apr 2020	16	315.000	Y		
Metal Working Machining Shop Set Type II ^(†)		2021	JMTC / Rock Island	MIPR	JMTC, Rock Island, IL	Nov 2020	Apr 2021	17	321.000	Y		

^(†) indicates the presence of a P-21

UNCLASSIFIED

Exhibit P-21, Production Schedule: PB 2021 Army															Date: February 2020														
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 45										P-1 Line Item Number / Title: 0639G05301 / Mobile Maintenance Equipment Systems										Item Number / Title [DODIC]: G05315 / METAL WORKING AND MACHING SHOP SET (MWMSS)									

Cost Elements <i>(Units in Each)</i>						Fiscal Year 2021												Fiscal Year 2022												BALANCE						
O C C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2020	BAL DUE AS OF 1 OCT	Calendar Year 2021												Calendar Year 2022																	
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G		S E P					
Metal Working Machining Shop Set Type I																																				
Prior Years Deliveries: 60																																				
	1	2019	ARMY	22	22	0																														0
	1	2020	ARMY	17	11	6	1	1	1	1	1	1																								0
	1	2021	ARMY	18	0	18		A	-	-	-	-	-	1	2	2	2	2	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	0	
✓	1	2021	ARMY	1	0	1		A	-	-	-	-	-	1																					0	
Metal Working Machining Shop Set Type II																																				
Prior Years Deliveries: 58																																				
	2	2019	ARMY	6	6	0																														0
	2	2020	ARMY	16	10	6	1	1	1	1	1	1																								0
	2	2021	ARMY	17	0	17		A	-	-	-	-	-	2	2	2	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P						

UNCLASSIFIED

Exhibit P-21, Production Schedule: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 45		P-1 Line Item Number / Title: 0639G05301 / Mobile Maintenance Equipment Systems
Item Number / Title [DODIC]: G05315 / METAL WORKING AND MACHING SHOP SET (MWMSS)		

MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Month)			Procurement Leadtime (Months)							
		MSR For 2021	1-8-5 For 2021	MAX For 2021	Initial				Reorder			
					ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1	ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1
1	JMTC - Rock Island	1	2	6	0	2	8	10	0	1	5	6
2	JMTC - Rock Island	1	2	6	0	2	8	10	0	1	5	6

Remarks:
Minimum rate is 1 module per month, either Type I or Type II

"A" in the Delivery Schedule indicates the Contract Award Date.

Note: Due to space limitations, quantities in the Exhibit P-21 delivery calendar are truncated and rounded based on the maximum quantity in the calendar as follows. If the maximum quantity is less than or equal to than 9,999, all quantities are shown as each. If the maximum quantity is between 10,000 and 999,999 all quantities are shown in thousands. If the maximum quantity is between 1,000,000 and 999,999,999 all quantities are shown in millions (rounded to the nearest thousand). If the maximum quantity is equal or greater than 1,000,000,000 all quantities are shown in billions (rounded to the nearest million).

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 45	P-1 Line Item Number / Title: 0639G05301 / Mobile Maintenance Equipment Systems	Item Number / Title [DODIC]: G05320 / FIRE SUPPRESSION REFILL SYSTEM (FSRS)

ID Code (A=Service Ready, B=Not Service Ready) : A	MDAP/MAIS Code:
-----------------------------------------------------------	------------------------

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Procurement Quantity (Units in Each)	4	15	27	7	-	7
Gross/Weapon System Cost (\$ in Millions)	20.544	6.557	8.370	2.778	-	2.778
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	20.544	6.557	8.370	2.778	-	2.778
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	20.544	6.557	8.370	2.778	-	2.778

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (\$ in Millions)	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Thousands)	5,136.000	437.133	310.000	396.857	-	396.857

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
Flyaway Cost																		
Recurring Cost																		
Engineering Change Proposals	-	-	0.070	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Transportation	-	-	0.286	-	-	0.043	-	-	0.072	-	-	0.060	-	-	-	-	-	0.060
Tech Manual	-	-	0.001	-	-	0.001	-	-	0.003	-	-	0.002	-	-	-	-	-	0.002
<i>Subtotal: Recurring Cost</i>	-	-	<i>0.357</i>	-	-	<i>0.044</i>	-	-	<i>0.075</i>	-	-	<i>0.062</i>	-	-	-	-	-	<i>0.062</i>
<i>Subtotal: Flyaway Cost</i>	-	-	<i>0.357</i>	-	-	<i>0.044</i>	-	-	<i>0.075</i>	-	-	<i>0.062</i>	-	-	-	-	-	<i>0.062</i>
Hardware Cost																		
Recurring Cost																		
Fire Suppression Refill System ^(†)	318.000	19	6.042	310.000	16	4.960	287.000	27	7.749	255.000	7	1.785	-	-	-	255.000	7	1.785
<i>Subtotal: Recurring Cost</i>	-	-	<i>6.042</i>	-	-	<i>4.960</i>	-	-	<i>7.749</i>	-	-	<i>1.785</i>	-	-	-	-	-	<i>1.785</i>
<i>Subtotal: Hardware Cost</i>	-	-	<i>6.042</i>	-	-	<i>4.960</i>	-	-	<i>7.749</i>	-	-	<i>1.785</i>	-	-	-	-	-	<i>1.785</i>
Support - Fielding Cost																		
Fielding	-	-	0.953	-	-	0.068	-	-	0.105	-	-	0.409	-	-	-	-	-	0.409
<i>Subtotal: Support - Fielding Cost</i>	-	-	<i>0.953</i>	-	-	<i>0.068</i>	-	-	<i>0.105</i>	-	-	<i>0.409</i>	-	-	-	-	-	<i>0.409</i>
Support - Logistics Cost																		
Integrated Logistics Support	-	-	-	-	-	0.329	-	-	0.123	-	-	0.210	-	-	-	-	-	0.210

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 45	P-1 Line Item Number / Title: 0639G05301 / Mobile Maintenance Equipment Systems	Item Number / Title [DODIC]: G05320 / FIRE SUPPRESSION REFILL SYSTEM (FSRS)
ID Code (A=Service Ready, B=Not Service Ready) : A		MDAP/MAIS Code:

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
<i>Subtotal: Support - Logistics Cost</i>	-	-	-	-	-	0.329	-	-	0.123	-	-	0.210	-	-	-	-	-	0.210
Support - Production Engineering Cost																		
Production Engineering	-	-	1.003	-	-	0.139	-	-	0.062	-	-	0.153	-	-	-	-	-	0.153
<i>Subtotal: Support - Production Engineering Cost</i>	-	-	1.003	-	-	0.139	-	-	0.062	-	-	0.153	-	-	-	-	-	0.153
Support - Program Management Cost																		
Government Management	-	-	11.326	-	-	0.969	-	-	0.242	-	-	0.113	-	-	-	-	-	0.113
<i>Subtotal: Support - Program Management Cost</i>	-	-	11.326	-	-	0.969	-	-	0.242	-	-	0.113	-	-	-	-	-	0.113
Support - Quality Assurance Cost																		
Quality Assurance	-	-	0.863	-	-	0.048	-	-	0.014	-	-	0.046	-	-	-	-	-	0.046
<i>Subtotal: Support - Quality Assurance Cost</i>	-	-	0.863	-	-	0.048	-	-	0.014	-	-	0.046	-	-	-	-	-	0.046
Gross/Weapon System Cost	5,136.000	4	20.544	437.133	15	6.557	310.000	27	8.370	396.857	7	2.778	-	-	-	396.857	7	2.778

Remarks:

FY21 is the last year of funds for this program. FY21 support costs include fielding and logistics support for FY22.

FY19 actual program is inaccurate and should be \$6,105K therefore, Government Management should be \$517K.

Prior Year and FY19 unit cost reflects start-up costs and an inflated container cost due to an urgent buy requirement.

Resource Summary section reflects erroneous quantities for Prior Years and FY19. P-5 cost element section reflects actual quantities procured in Prior Years (19) and FY19 (16).

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Army	Quantity	6	12	3	-	3
	Total Obligation Authority	4.780	3.610	1.758	-	1.758
ANG	Quantity	8	13	3	-	3
	Total Obligation Authority	1.437	4.080	0.680	-	0.680
AR	Quantity	1	2	1	-	1
	Total Obligation Authority	0.340	0.680	0.340	-	0.340
Total:	Quantity	15	27	7	-	7

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army			Date: February 2020			
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 45		P-1 Line Item Number / Title: 0639G05301 / Mobile Maintenance Equipment Systems		Item Number / Title [DODIC]: G05320 / FIRE SUPPRESSION REFILL SYSTEM (FSRS)		
ID Code (A=Service Ready, B=Not Service Ready) : A			MDAP/MAIS Code:			
Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Secondary Distribution	Total Obligation Authority	6.557	8.370	2.778	-	2.778

(t) indicates the presence of a P-5a

UNCLASSIFIED

Exhibit P-5a, Procurement History and Planning: PB 2021 Army							Date: February 2020					
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 45			P-1 Line Item Number / Title: 0639G05301 / Mobile Maintenance Equipment Systems				Item Number / Title [DODIC]: G05320 / FIRE SUPPRESSION REFILL SYSTEM (FSRS)					
Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty (Each)	Unit Cost (\$ K)	Specs Avail Now?	Date Revision Available	RFP Issue Date
Fire Suppression Refill System		2019	JMTC - Integration / Rock Island Arsenal, IL	MIPR	Rock Island Arsenal, IL	Apr 2019	Nov 2019	16	310.000	Y		
Fire Suppression Refill System		2020	JMTC - Integration / Rock Island Arsenal, IL	MIPR	Rock Island Arsenal, IL	Apr 2020	Nov 2020	27	287.000	Y		
Fire Suppression Refill System		2021	JMTC - Integration / Rock Island Arsenal, IL	MIPR	Rock Island Arsenal, IL	Apr 2021	Nov 2021	7	255.000	Y		

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 45	P-1 Line Item Number / Title: 0639G05301 / Mobile Maintenance Equipment Systems	Item Number / Title [DODIC]: G05330 / ARMAMENT REPAIR SHOP SET (ARSS)

ID Code (A=Service Ready, B=Not Service Ready) : A	MDAP/MAIS Code:
-----------------------------------------------------------	------------------------

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Procurement Quantity (Units in Each)	59	31	61	59	23	82
Gross/Weapon System Cost (\$ in Millions)	57.233	14.424	22.829	20.771	7.338	28.109
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	57.233	14.424	22.829	20.771	7.338	28.109
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	57.233	14.424	22.829	20.771	7.338	28.109

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (\$ in Millions)	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Thousands)	970.051	465.290	374.246	352.051	319.043	342.793

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
Flyaway Cost																		
Recurring Cost																		
Engineering	-	-	0.370	-	-	-	-	-	0.139	-	-	0.204	-	-	-	-	-	0.204
Quality Assurance	-	-	0.201	-	-	0.048	-	-	0.048	-	-	0.092	-	-	-	-	-	0.092
Engineering Change Proposals	-	-	0.555	-	-	-	-	-	0.050	-	-	0.075	-	-	-	-	-	0.075
Transportation	-	-	0.263	-	-	0.078	-	-	0.068	-	-	0.079	-	-	0.024	-	-	0.103
<i>Subtotal: Recurring Cost</i>	-	-	1.389	-	-	0.126	-	-	0.305	-	-	0.450	-	-	0.024	-	-	0.474
<i>Subtotal: Flyaway Cost</i>	-	-	1.389	-	-	0.126	-	-	0.305	-	-	0.450	-	-	0.024	-	-	0.474
Hardware Cost																		
Recurring Cost																		
ARSS Hardware ^(†)	372.000	127	47.244	395.645	31	12.265	438.840	6	2.633	-	-	-	-	-	-	-	-	-
ARSS 2 Hardware ^(†)	-	-	-	-	-	-	321.000	55	17.655	318.000	59	18.762	318.000	23	7.314	318.000	82	26.076
<i>Subtotal: Recurring Cost</i>	-	-	47.244	-	-	12.265	-	-	20.288	-	-	18.762	-	-	7.314	-	-	26.076
<i>Subtotal: Hardware Cost</i>	-	-	47.244	-	-	12.265	-	-	20.288	-	-	18.762	-	-	7.314	-	-	26.076
Package Fielding Cost																		
Recurring Cost																		
Fielding Support	-	-	0.552	-	-	0.118	-	-	0.155	-	-	0.304	-	-	-	-	-	0.304
<i>Subtotal: Recurring Cost</i>	-	-	0.552	-	-	0.118	-	-	0.155	-	-	0.304	-	-	-	-	-	0.304
<i>Subtotal: Package Fielding Cost</i>	-	-	0.552	-	-	0.118	-	-	0.155	-	-	0.304	-	-	-	-	-	0.304

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 45		P-1 Line Item Number / Title: 0639G05301 / Mobile Maintenance Equipment Systems
		Item Number / Title [DODIC]: G05330 / ARMAMENT REPAIR SHOP SET (ARSS)
ID Code (A=Service Ready, B=Not Service Ready) : A		MDAP/MAIS Code:

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
Support - Logistics Cost																		
Integrated Logistics Support	-	-	-	-	-	0.493	-	-	0.132	-	-	0.418	-	-	-	-	-	0.418
<i>Subtotal: Support - Logistics Cost</i>	-	-	-	-	-	0.493	-	-	0.132	-	-	0.418	-	-	-	-	-	0.418
Support - Program Management Cost																		
Government Management	-	-	8.048	-	-	1.422	-	-	1.949	-	-	0.837	-	-	-	-	-	0.837
<i>Subtotal: Support - Program Management Cost</i>	-	-	8.048	-	-	1.422	-	-	1.949	-	-	0.837	-	-	-	-	-	0.837
Gross/Weapon System Cost	970.051	59	57.233	465.290	31	14.424	374.246	61	22.829	352.051	59	20.771	319.043	23	7.338	342.793	82	28.109

Remarks:

FY19 actual program is inaccurate and should be \$13,430K therefore, Government Management should be \$428K.

FY19 unit cost lower due to receiving shelters at a reduced cost because of a cancellation with another Army program.

Resource Summary section reflects erroneous quantities for Prior Years. . P-5 cost element section reflects actual quantities procured in Prior Years (127).

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Army	Quantity	12	27	42	23	65
	Total Obligation Authority	11.999	10.274	8.987	7.338	16.325
ANG	Quantity	17	29	12	-	12
	Total Obligation Authority	1.610	10.729	7.948	-	7.948
AR	Quantity	2	5	5	-	5
	Total Obligation Authority	0.815	1.826	3.836	-	3.836
Total: Secondary Distribution	Quantity	31	61	59	23	82
	Total Obligation Authority	14.424	22.829	20.771	7.338	28.109

(†) indicates the presence of a P-5a

UNCLASSIFIED

Exhibit P-5a, Procurement History and Planning: PB 2021 Army							Date: February 2020				
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 45			P-1 Line Item Number / Title: 0639G05301 / Mobile Maintenance Equipment Systems				Item Number / Title [DODIC]: G05330 / ARMAMENT REPAIR SHOP SET (ARSS)				

Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty <i>(Each)</i>	Unit Cost <i>(\$ K)</i>	Specs Avail Now?	Date Revision Available	RFP Issue Date
ARSS Hardware		2019	Tobyhanna Army Depot / Tobyhanna	MIPR	TOBYHANNA ARMY DEPOT, PA	Nov 2018	May 2019	31	395.645	Y		
ARSS Hardware		2020	Tobyhanna Army Depot / Tobyhanna	MIPR	TOBYHANNA ARMY DEPOT, PA	Nov 2019	May 2020	6	438.840	Y		
ARSS 2 Hardware ^(†)		2020	Tobyhanna Army Depot / Tobyhanna	MIPR	TOBYHANNA ARMY DEPOT, PA	Nov 2019	May 2020	55	321.000	Y		
ARSS 2 Hardware ^(†)	✓	2021	Tobyhanna Army Depot / Tobyhanna	MIPR	TOBYHANNA ARMY DEPOT, PA	Nov 2020	May 2021	23	318.000	Y		
ARSS 2 Hardware ^(†)		2021	Tobyhanna Army Depot / Tobyhanna	MIPR	TOBYHANNA ARMY DEPOT, PA	Nov 2020	May 2021	59	318.000	Y		

^(†) indicates the presence of a P-21

UNCLASSIFIED

Exhibit P-21, Production Schedule: PB 2021 Army														Date: February 2020															
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 45										P-1 Line Item Number / Title: 0639G05301 / Mobile Maintenance Equipment Systems										Item Number / Title [DODIC]: G05330 / ARMAMENT REPAIR SHOP SET (ARSS)									

Cost Elements <i>(Units in Each)</i>						Fiscal Year 2021														Fiscal Year 2022														B A L A N C E	
O C C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2020	BAL DUE AS OF 1 OCT	Calendar Year 2021														Calendar Year 2022														
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P					
ARSS 2 Hardware																																			
	1	2020	ARMY	55	15	40	3	3	2	2	2	2	2																24						
	1	2021	ARMY	59	0	59		A -	-	-	-	-	-	5	5	5	5	5	5	5	4	4	4	6	6				0						
✓	1	2021	ARMY	23	0	23		A -	-	-	-	-	-	2	2	2	2	2	2	2	2	2	2	1				0							
								O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P				

UNCLASSIFIED

Exhibit P-21, Production Schedule: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 45		P-1 Line Item Number / Title: 0639G05301 / Mobile Maintenance Equipment Systems
Item Number / Title [DODIC]: G05330 / ARMAMENT REPAIR SHOP SET (ARSS)		

MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Month)			Procurement Leadtime (Months)							
		MSR For 2021	1-8-5 For 2021	MAX For 2021	Initial				Reorder			
					ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1	ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1
1	Tobyhanna Army Depot - Tobyhanna	1	10	18	0	1	6	7	0	1	6	7

"A" in the Delivery Schedule indicates the Contract Award Date.

Note: Due to space limitations, quantities in the Exhibit P-21 delivery calendar are truncated and rounded based on the maximum quantity in the calendar as follows. If the maximum quantity is less than or equal to than 9,999, all quantities are shown as each. If the maximum quantity is between 10,000 and 999,999 all quantities are shown in thousands. If the maximum quantity is between 1,000,000 and 999,999,999 all quantities are shown in millions (rounded to the nearest thousand). If the maximum quantity is equal or greater than 1,000,000,000 all quantities are shown in billions (rounded to the nearest million).

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 45	P-1 Line Item Number / Title: 0639G05301 / Mobile Maintenance Equipment Systems	Item Number / Title [DODIC]: M62700 / Shop Equipment, Welding (SEW)

ID Code (A=Service Ready, B=Not Service Ready) : A	MDAP/MAIS Code:
-----------------------------------------------------------	------------------------

Resource Summary		Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Procurement Quantity (Units in Each)		10	0	280	-	-	-
Gross/Weapon System Cost (\$ in Millions)		220.080	-	93.194	-	-	-
Less PY Advance Procurement (\$ in Millions)		-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)		220.080	-	93.194	-	-	-
Plus CY Advance Procurement (\$ in Millions)		-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)		220.080	-	93.194	-	-	-

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (\$ in Millions)	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Thousands)	22,008.000	-	332.836	-	-	-

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
Flyaway Cost																		
Recurring Cost																		
Tech Manuals	-	-	0.001	-	-	-	-	-	0.005	-	-	-	-	-	-	-	-	-
<i>Subtotal: Recurring Cost</i>	-	-	<i>0.001</i>	-	-	-	-	-	<i>0.005</i>	-	-	-	-	-	-	-	-	-
<i>Subtotal: Flyaway Cost</i>	-	-	<i>0.001</i>	-	-	-	-	-	<i>0.005</i>	-	-	-	-	-	-	-	-	-
Hardware Cost																		
Recurring Cost																		
Shop Equipment Welding(†)	226.581	888	201.204	-	-	-	141.000	50	7.050	-	-	-	-	-	-	-	-	-
<i>Subtotal: Recurring Cost</i>	-	-	<i>201.204</i>	-	-	-	-	-	<i>7.050</i>	-	-	-	-	-	-	-	-	-
<i>Subtotal: Hardware Cost</i>	-	-	<i>201.204</i>	-	-	-	-	-	<i>7.050</i>	-	-	-	-	-	-	-	-	-
Package Fielding Cost																		
Recurring Cost																		
Fielding	-	-	1.531	-	-	-	-	-	0.345	-	-	-	-	-	-	-	-	-
Transportation	-	-	0.061	-	-	-	-	-	0.084	-	-	-	-	-	-	-	-	-
Congressional Add - SECM	-	-	-	-	-	-	-	-	85.000	-	-	-	-	-	-	-	-	-
<i>Subtotal: Recurring Cost</i>	-	-	<i>1.592</i>	-	-	-	-	-	<i>85.429</i>	-	-	-	-	-	-	-	-	-
<i>Subtotal: Package Fielding Cost</i>	-	-	<i>1.592</i>	-	-	-	-	-	<i>85.429</i>	-	-	-	-	-	-	-	-	-
Support - Engineering Change Proposals Cost																		

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 45	P-1 Line Item Number / Title: 0639G05301 / Mobile Maintenance Equipment Systems	Item Number / Title [DODIC]: M62700 / Shop Equipment, Welding (SEW)

ID Code (A=Service Ready, B=Not Service Ready) : A	MDAP/MAIS Code:
-----------------------------------------------------------	------------------------

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
Engineering Change Proposals	-	-	3.284	-	-	-	-	-	0.002	-	-	-	-	-	-	-	-	-
<i>Subtotal: Support - Engineering Change Proposals Cost</i>	-	-	3.284	-	-	-	-	-	0.002	-	-	-	-	-	-	-	-	-
Support - Logistics Cost																		
Integrated Logistics Support	-	-	-	-	-	-	-	-	0.134	-	-	-	-	-	-	-	-	-
<i>Subtotal: Support - Logistics Cost</i>	-	-	-	-	-	-	-	-	0.134	-	-	-	-	-	-	-	-	-
Support - Production Engineering Cost																		
Production Engineering	-	-	0.170	-	-	-	-	-	0.100	-	-	-	-	-	-	-	-	-
<i>Subtotal: Support - Production Engineering Cost</i>	-	-	0.170	-	-	-	-	-	0.100	-	-	-	-	-	-	-	-	-
Support - Program Management Cost																		
Government Management	-	-	13.706	-	-	-	-	-	0.384	-	-	-	-	-	-	-	-	-
<i>Subtotal: Support - Program Management Cost</i>	-	-	13.706	-	-	-	-	-	0.384	-	-	-	-	-	-	-	-	-
Support - Quality Assurance Cost																		
Quality Assurance	-	-	0.123	-	-	-	-	-	0.090	-	-	-	-	-	-	-	-	-
<i>Subtotal: Support - Quality Assurance Cost</i>	-	-	0.123	-	-	-	-	-	0.090	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost	22,008.000	10	220.080	-	0	-	332.836	280	93.194	-	-	-	-	-	-	-	-	-

Remarks:
 FY19 actual program is inaccurate and should be \$2,367K therefore, a quantity of 15 was procured.
 \$85M Congressional add for NG SECM in FY20 should be on SSN M61500 was placed on SEW M62700 instead. Procuring 230 NG SECM.
 Resource Summary section reflects erroneous quantities for Prior Years and FY19. P-5 cost element section reflects actual quantities procured in Prior Years (888) and FY19 (15).

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Army	Quantity	-	255	-	-	-
	Total Obligation Authority	-	89.023	-	-	-

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 45	P-1 Line Item Number / Title: 0639G05301 / Mobile Maintenance Equipment Systems	Item Number / Title [DODIC]: M62700 / Shop Equipment, Welding (SEW)

ID Code (A=Service Ready, B=Not Service Ready) : A **MDAP/MAIS Code:**

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
ANG	Quantity	-	23	-	-	-
	Total Obligation Authority	-	3.851	-	-	-
AR	Quantity	-	2	-	-	-
	Total Obligation Authority	-	0.320	-	-	-
Total: Secondary Distribution	Quantity	0	280	-	-	-
	Total Obligation Authority	-	93.194	-	-	-

(†) indicates the presence of a P-5a

UNCLASSIFIED

Exhibit P-5a, Procurement History and Planning: PB 2021 Army							Date: February 2020					
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 45			P-1 Line Item Number / Title: 0639G05301 / Mobile Maintenance Equipment Systems				Item Number / Title [DODIC]: M62700 / Shop Equipment, Welding (SEW)					
Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty (Each)	Unit Cost (\$ K)	Specs Avail Now?	Date Revision Available	RFP Issue Date
Shop Equipment Welding		2020	JMTC / Rock Island, IL	MIPR	Rock Island, IL	Dec 2020	May 2021	50	141.000	Y		

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 45: Maintenance Equipment	P-1 Line Item Number / Title: 9562ML5345 / Items Less Than \$5.0M (Maint Eq)
------------------------------------------------------------------------------------------------------------------------------------------------------------------	----------------------------------------------------------------------------------------

ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
----------------------------------------------------------	-----------------------------------------------	--------------------------------------------

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	1,202	409	588	421	16	437	2,179	1,747	-	-	-	6,562
Gross/Weapon System Cost (<i>\$ in Millions</i>)	123.298	5.253	5.608	5.386	0.184	5.570	7.248	2.323	-	-	-	149.300
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	123.298	5.253	5.608	5.386	0.184	5.570	7.248	2.323	-	-	-	149.300
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	123.298	5.253	5.608	5.386	0.184	5.570	7.248	2.323	-	-	-	149.300

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Thousands</i>)	102.577	12.844	9.537	12.793	11.500	12.746	3.326	1.330	-	-	-	22.752

Description:

Items Less Than \$5 Million (Maintenance Equipment): Acquire and field maintenance support equipment to support combat operations, such as the Machinist Measuring Tool Set (MMTS), Load Bank System Tactical Electric Power (TEP), Refrigeration Tool Kit, Individual and Base, with improved, modernized, standardized, and centralized maintenance Sets, Kits, Outfits, and Tools (SKOT).

The Machinist Measuring Tool Set (MMTS) provides necessary components for general machinist's use. The MMTS facilitates fabrication, repair, and modifications of metallic and nonmetallic parts, and supports metalworking shop activities. The MMTS supplements the Metal Working & Machining Shop Set (MWMSS) by providing an authorized set of hand tools and personal protective equipment necessary for the 91E Soldier to conduct welding and machining operations. The set consists of a tool box and 73 components (i.e. gauges, calipers, rulers, hammer, punches, etc.). Army Acquisition Objective (AAO) for MMTS is 2436.

The Load Bank System Tactical Electric Power (TEP) is a Soldier-portable system required for performing diagnostics, repairs and post verification testing on all small and medium tactical generators of the Army's tactical fleet. The Load Bank System is a critical key maintenance enabler for the Tactical Electric Power (TEP) medium tactical generators (2 to 60 kw) which enable readiness of weapons systems. TEP generator sets provide power to critical life saving operations such as field hospitals that provide medical support to combat wounded soldiers, satellite and land communication systems to communicate with Soldiers in convoys and foot patrols, Tactical Operation Centers and various Soldier life support operations. This equipment allows Soldiers to properly and adequately maintain reliable systems that meet Soldier safety, supportability, and mobility requirements, thereby reducing the risk to the warfighter. The capability that Load Banks provide to load test generator sets is an essential function that Army maintenance units require to support combat and peacetime operations. Army Acquisition Objective (AAO) for Load Bank System Tactical Electric Power (TEP) is 1270.

The Refrigeration Tool Kit (RTK) consists of two kits, the Individual Soldier kit and the Base kit. Maintenance equipment operates in all environments where United States Armed Forces deploy to support Tactical and Sustainment Mobility. Maintenance equipment operates in all environments where United States Armed Forces deploy to support Tactical and Sustainment Mobility (Gap #10). These kits provide the Military Occupational Specialty (MOS) 91C Utilities Equipment Repairer Soldiers all the tools and equipment required to test, maintain and repair every Environmental Control Unit (ECU) on and off the battlefield. Proper functioning ECU's are a critical component in Combat Vehicles and are essential to Command and Control units operating in varying climatic conditions. Proper functioning ECUs also facilitate hospital/medical activities such as laboratory operations, blood banks, aiding mortuary affairs, safe transportation and storage of perishable foods; providing environmentally-controlled conditions for Soldiers: Signal/Command and control equipment and humanitarian support, disaster relief and homeland security deployments. The RTK operates in all environments where United States Armed Forces deploy to support Tactical and Sustainment Mobility. The RTK provides field level maintenance for all Army equipment that requires an ECU. The RTK provides the capability to support maintenance operations as far forward as possible on the battlefield by providing on-system maintenance repairs to Army equipment and/or components, which allows major combat systems to return to the fight rapidly. RTK Individual kit Army Acquisition Objective (AAO) is 4762 and Base kit is 2655.

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2021 Army							Date: February 2020		
Appropriation / Budget Activity / Budget Sub Activity: 2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 45: Maintenance Equipment					P-1 Line Item Number / Title: 9562ML5345 / Items Less Than \$5.0M (Maint Eq)				
ID Code (A=Service Ready, B=Not Service Ready): A			Program Elements for Code B Items: N/A			Other Related Program Elements: N/A			
Line Item MDAP/MAIS Code: N/A									

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
Army	Quantity	409	328	163	16	179	1,080	864	-	-
	Total Obligation Authority	5.253	2.731	4.360	0.184	4.544	3.134	1.068	-	-
ANG	Quantity	-	188	187	-	187	855	700	-	-
	Total Obligation Authority	-	2.107	0.164	-	0.164	3.016	0.946	-	-
AR	Quantity	-	72	71	-	71	244	183	-	-
	Total Obligation Authority	-	0.770	0.862	-	0.862	1.098	0.309	-	-
Total:	Quantity	409	588	421	16	437	2,179	1,747	-	-
Secondary Distribution	Total Obligation Authority	5.253	5.608	5.386	0.184	5.570	7.248	2.323	-	-

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity:
2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 45: Maintenance Equipment

P-1 Line Item Number / Title:
9562ML5345 / Items Less Than \$5.0M (Maint Eq)

ID Code (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** N/A **Other Related Program Elements:** N/A

Line Item MDAP/MAIS Code: N/A

Exhibits Schedule					Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-5	G32101 / ITEMS LESS THAN \$5.0M (MAINT SUPP EQUIP)	P-5a	A		1,202 / 123.298	409 / 5.253	588 / 5.608	421 / 5.386	16 / 0.184	437 / 5.570
P-40	Total Gross/Weapon System Cost				1,202 / 123.298	409 / 5.253	588 / 5.608	421 / 5.386	16 / 0.184	437 / 5.570

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

Justification:
FY21 Base procurement dollars in the amount of \$2.776 million will procure 295 Refrigeration Tool Kits (RTK) - Individual Soldier Kit, \$2.610 million will procure 90 RTK - Base Kit. FY21 OCO dollars in the amount of \$.184 million will procure 22 RTK - Individual Soldier Kit. There are no FY21 President's Budget (PB) Dollars for the Machinist Measuring Tool Sets (MMTS) and the Load Bank System Tactical Electric Power (TEP).

Maintenance equipment operates in all environments where United States Armed Forces deploy to support Tactical and Sustainment Mobility. Maintenance equipment operates in all environments where United States Armed Forces deploy to support Tactical and Sustainment Mobility (Gap #10).

The maintenance equipment is essential for units to properly maintain equipment, perform the mandatory maintenance operations and perform diagnostic testing which maintains the readiness of weapons systems. This equipment allows Soldiers to properly and adequately maintain vehicles and systems at the field level decreasing the higher echelon maintenance requirement (Gap #17). Properly maintained systems perform at maximum capability, with improved safety and reduced risk to the warfighter. This equipment supports combat operations, Army Forces and unit Mission Essential Task List (METL) requirements. The Army requires reliable systems that support Soldier safety, supportability, and mobility requirements. SKOT systems require continuous review, revision, and upgrades to support Army requirements. Maintenance equipment operates in all environments where United States Armed Forces deploy to support Tactical and Sustainment Mobility.

In accordance with Section 1815 of the FY 2008 National Defense Authorization Act (P.L. 110-181), this item is necessary for use by the active and reserve components of the Armed Forces for homeland defense missions, domestic emergency responses, and providing military support to civil authorities.

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 45	P-1 Line Item Number / Title: 9562ML5345 / Items Less Than \$5.0M (Maint Eq)	Item Number / Title [DODIC]: G32101 / ITEMS LESS THAN \$5.0M (MAINT SUPP EQUIP)

ID Code (A=Service Ready, B=Not Service Ready) : A				MDAP/MAIS Code:				
Resource Summary			Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Procurement Quantity (Units in Each)	1,202		409	588	421	16	437	
Gross/Weapon System Cost (\$ in Millions)	123.298		5.253	5.608	5.386	0.184	5.570	
Less PY Advance Procurement (\$ in Millions)	-		-	-	-	-	-	
Net Procurement (P-1) (\$ in Millions)	123.298		5.253	5.608	5.386	0.184	5.570	
Plus CY Advance Procurement (\$ in Millions)	-		-	-	-	-	-	
Total Obligation Authority (\$ in Millions)	123.298		5.253	5.608	5.386	0.184	5.570	
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>								
Initial Spares (\$ in Millions)	-		-	-	-	-	-	
Gross/Weapon System Unit Cost (\$ in Thousands)	102.577		12.844	9.537	12.793	11.500	12.746	

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
Flyaway Cost																		
Recurring Cost																		
Air Compressors	5.430	365	1.982	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Spare Parts Storage Field Shop Set	9.064	78	0.707	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Radiator Test & Repair Shop Equip	21.000	1	0.021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Torch Outfit, Cut & Weld Org Maint Set	2.000	10	0.020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Standard Automotive Tool Set	415.000	227	94.205	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ammunition Tool Kit	32.000	114	3.648	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Recurring Cost</i>	-	-	100.583	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Flyaway Cost</i>	-	-	100.583	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hardware Cost																		
Recurring Cost																		
Load Banks ^(†)	4.908	630	3.092	5.138	282	1.449	5.249	358	1.879	-	-	-	-	-	-	-	-	-
Refrigeration Tool Kit - Individual ^(†)	7.545	11	0.083	7.653	72	0.551	7.886	176	1.388	8.081	295	2.384	8.091	22	0.178	8.082	317	2.562
Refrigeration Tool Kit - Base ^(†)	24.333	3	0.073	24.633	30	0.739	24.634	41	1.010	25.522	90	2.297	-	-	-	25.522	90	2.297

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 45		P-1 Line Item Number / Title: 9562ML5345 / Items Less Than \$5.0M (Maint Eq)
		Item Number / Title [DODIC]: G32101 / ITEMS LESS THAN \$5.0M (MAINT SUPP EQUIP)

ID Code (A=Service Ready, B=Not Service Ready) : A	MDAP/MAIS Code:
-----------------------------------------------------------	------------------------

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
Machinist Measuring Tool Set ^(†)	5.237	2,191	11.474	5.392	245	1.321	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Recurring Cost</i>	-	-	14.722	-	-	4.060	-	-	4.277	-	-	4.681	-	-	0.178	-	-	4.859
<i>Subtotal: Hardware Cost</i>	-	-	14.722	-	-	4.060	-	-	4.277	-	-	4.681	-	-	0.178	-	-	4.859
Support - Fielding Cost																		
Fielding	-	-	1.968	-	-	0.260	-	-	0.695	-	-	0.156	-	-	-	-	-	0.156
<i>Subtotal: Support - Fielding Cost</i>	-	-	1.968	-	-	0.260	-	-	0.695	-	-	0.156	-	-	-	-	-	0.156
Support - Production Engineering Cost																		
Production Engineering	-	-	1.632	-	-	0.047	-	-	0.190	-	-	0.170	-	-	-	-	-	0.170
<i>Subtotal: Support - Production Engineering Cost</i>	-	-	1.632	-	-	0.047	-	-	0.190	-	-	0.170	-	-	-	-	-	0.170
Support - Program Management Cost																		
Government Management	-	-	4.231	-	-	0.839	-	-	0.446	-	-	0.279	-	-	0.006	-	-	0.285
<i>Subtotal: Support - Program Management Cost</i>	-	-	4.231	-	-	0.839	-	-	0.446	-	-	0.279	-	-	0.006	-	-	0.285
Support - Quality Assurance Cost																		
Quality Assurance	-	-	0.162	-	-	0.047	-	-	-	-	-	0.100	-	-	-	-	-	0.100
<i>Subtotal: Support - Quality Assurance Cost</i>	-	-	0.162	-	-	0.047	-	-	-	-	-	0.100	-	-	-	-	-	0.100
Gross/Weapon System Cost	102.577	1,202	123.298	12.844	409	5.253	9.537	588	5.608	12.793	421	5.386	11.500	16	0.184	12.746	437	5.570

Remarks:
 Prior Year, FY19, FY20, and FY21 P-40 Resource Summary has incorrect quantities. P-40 should show: FY21 385, FY20 575, FY19 384.
 FY21 P-40 Resource Summary for RTK Individual OCO has an incorrect quantity. The correct FY21 quantity is 22.
 FY19, FY20, and FY21 Secondary Distribution (Compo Split) have incorrect quantities.
 Gross/Weapon System Unit Cost fluctuates in FY20 and FY21 because there are multiple programs being funded with multiple different unit costs.

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Army	Quantity	409	328	163	16	179

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 45	P-1 Line Item Number / Title: 9562ML5345 / Items Less Than \$5.0M (Maint Eq)	Item Number / Title [DODIC]: G32101 / ITEMS LESS THAN \$5.0M (MAINT SUPP EQUIP)

ID Code (A=Service Ready, B=Not Service Ready) : A		MDAP/MAIS Code:				
Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
	Total Obligation Authority	5.253	2.731	4.360	0.184	4.544
ANG	Quantity	-	188	187	-	187
	Total Obligation Authority	-	2.107	0.164	-	0.164
AR	Quantity	-	72	71	-	71
	Total Obligation Authority	-	0.770	0.862	-	0.862
Total:	Quantity	409	588	421	16	437
Secondary Distribution	Total Obligation Authority	5.253	5.608	5.386	0.184	5.570

(t) indicates the presence of a P-5a

UNCLASSIFIED

Exhibit P-5a, Procurement History and Planning: PB 2021 Army								Date: February 2020				
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 45			P-1 Line Item Number / Title: 9562ML5345 / Items Less Than \$5.0M (Maint Eq)					Item Number / Title [DODIC]: G32101 / ITEMS LESS THAN \$5.0M (MAINT SUPP EQUIP)				
Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty (Each)	Unit Cost (\$ K)	Specs Avail Now?	Date Revision Available	RFP Issue Date
Load Banks		2019	American Electrical Enterprise / Clinton, NY	SS / FFP	TACOM, Warren, MI	Jan 2019	Apr 2019	282	5.138	Y		
Load Banks		2020	American Electrical Enterprise / Clinton, NY	SS / FFP	TACOM, Warren, MI	Dec 2019	Aug 2020	358	5.249	Y		
Refrigeration Tool Kit - Individual		2019	Beyond Vision / Milwaukee, WI	C / FFP	TACOM, Warren, MI	Sep 2019	Jan 2020	72	7.653	Y		
Refrigeration Tool Kit - Individual		2020	Beyond Vision / Milwaukee, WI	C / FFP	TACOM, Warren, MI	Nov 2019	Feb 2020	176	7.886	Y		
Refrigeration Tool Kit - Individual		2021	Beyond Vision / Milwaukee, WI	C / FFP	TACOM Warren, MI	Nov 2020	Jan 2021	295	8.081	Y		
Refrigeration Tool Kit - Individual	✓	2021	Beyond Vision / Milwaukee, WI	C / FFP	TACOM Warren, MI	Nov 2020	Jan 2021	22	8.091	N		
Refrigeration Tool Kit - Base		2019	Beyond Vision / Milwaukee, WI	C / FFP	TACOM, Warren, MI	Sep 2019	Jan 2020	30	24.633	Y		
Refrigeration Tool Kit - Base		2020	Beyond Vision / Milwaukee, WI	C / FFP	TACOM, Warren, MI	Nov 2019	Feb 2020	41	24.634	Y		
Refrigeration Tool Kit - Base		2021	Beyond Vision / Milwaukee, WI	C / FFP	TACOM, Warren, MI	Nov 2020	Jan 2021	90	25.522	Y		
Machinist Measuring Tool Set		2019	I. B. MILWAUKEE / West Allis, WI	SS / FFP	TACOM, Warren, MI	Jan 2019	Apr 2019	245	5.392	Y		

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 50: Construction Equipment	P-1 Line Item Number / Title: 0375R03800 / Grader, Road Mtzd, Hvy, 6X4 (CCE)
----------------------------------------------------------------------------------------------------------------------------------------------------------------------	----------------------------------------------------------------------------------------

ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
---------------------------------------------------	----------------------------------------	-------------------------------------

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	16	-	-	-	-	-	-	-	-	-	-	16
Gross/Weapon System Cost (<i>\$ in Millions</i>)	332.144	-	-	5.406	-	5.406	-	-	-	-	-	337.550
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	332.144	-	-	5.406	-	5.406	-	-	-	-	-	337.550
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	332.144	-	-	5.406	-	5.406	-	-	-	-	-	337.550

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Thousands</i>)	20,759.000	-	-	-	-	-	-	-	-	-	-	21,096.875

Description:

The 120M Heavy Grader enables the Horizontal and Vertical Construction Companies, Engineer Support Companies, Clearance Companies, Asphalt Teams and Quarry Platoons with the capability necessary to conduct engineer missions including grading, shaping, bank sloping, ditching, scarifying, general construction and maintenance of roads and airfields. Self-deployable, the Grader is a critical enabler in the construction, maintenance and repair of roads, airfields, hardstands, drainage and site preparation for basecamps, pipeline installation and river crossings. The Grader is diesel-engine driven, pneumatic tired, with articulated frame steering. It is equipped with a power shift transmission, fully enclosed cab, hydraulically operated blade. The Grader program includes the Type I and the Type IA Air Droppable variant. The Grader is a commercial off the shelf (COTS) program that is considered a Critical Dual Use (CDU) system enabling and supporting Defense Support to Civil Authorities (DSCA) operations. The Army Acquisition Objective (AAO) is 885 (861 Type I & 20 Type IA); with 44 Construction Equipment Virtual Trainers (CEVT).

Construction Equipment Virtual Trainers (CEVT) - The CEVT are commercial off the shelf virtual training devices with software modifications for military unique tasks. These simulators enable the United States Army Engineer School with the capability to more effectively train Engineer Military Occupational Skill (MOS), while reducing maintenance of actual equipment and fuel costs during traditional training. These simulators provide the Engineer Warfighter with a multitude of training scenarios and continuous hands on training on a variety of construction equipment and in various simulated conditions. Use of CEVT increases skills and competency in the operation of equipment.

Secondary Distribution	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
Army									
Quantity	-	-	-	-	-	-	-	-	-
Total Obligation Authority	-	-	5.406	-	5.406	-	-	-	-
Total:									
Secondary Distribution									
Quantity	-	-	-	-	-	-	-	-	-
Total Obligation Authority	-	-	5.406	-	5.406	-	-	-	-

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity:
 2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 50: Construction Equipment

P-1 Line Item Number / Title:
 0375R03800 / Grader, Road Mtzd, Hvy, 6X4 (CCE)

ID Code (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** N/A **Other Related Program Elements:** N/A

Line Item MDAP/MAIS Code: N/A

Exhibits Schedule					Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-5	R03801 / GRADER, MTZD, HVY		B		16 / 332.144	- / -	- / -	- / 5.406	- / -	- / 5.406
P-40	Total Gross/Weapon System Cost				16 / 332.144	- / -	- / -	- / 5.406	- / -	- / 5.406

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

Justification:

FY 2021 Base procurement dollars in the amount of \$5.406 million procures 44 Grader Construction Equipment Virtual Trainers (CEVT) simulators, and program support.

Note: Prior Year quantities of 16 is incorrect. The P5 quantities of 778 reflects actual execution of the program.

IAW Section 1815 of the FY 2008 NDAA this item is necessary for use by the Active and Reserve Components of the Armed Forces for homeland defense missions, domestic emergency responses, and providing military support to civil authorities.

Grader, Road Mtzd, Hvy, 6X4 (CCE) is a new start in FY2021.

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army						Date: February 2020			
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 50				P-1 Line Item Number / Title: 0375R03800 / Grader, Road Mtzd, Hvy, 6X4 (CCE)			Item Number / Title [DODIC]: R03801 / GRADER, MTZD, HVY		
ID Code (A=Service Ready, B=Not Service Ready) : B				MDAP/MAIS Code:					
Resource Summary				Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Procurement Quantity (Units in Each)				16	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)				332.144	-	-	5.406	-	5.406
Less PY Advance Procurement (\$ in Millions)				-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)				332.144	-	-	5.406	-	5.406
Plus CY Advance Procurement (\$ in Millions)				-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)				332.144	-	-	5.406	-	5.406
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>									
Initial Spares (\$ in Millions)				-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Thousands)				20,759.000	-	-	-	-	-

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
Flyaway Cost																		
Recurring Cost																		
Hardware	250.000	778	194.500	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
System Engineering/Program Management	-	-	33.214	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Support Equipment	-	-	18.231	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fielding	-	-	86.199	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Recurring Cost</i>	-	-	<i>332.144</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Flyaway Cost</i>	-	-	<i>332.144</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Support - Program Management Cost																		
Government Management	-	-	-	-	-	-	-	-	-	-	-	0.162	-	-	-	-	-	0.162
<i>Subtotal: Support - Program Management Cost</i>	-	-	-	-	-	-	-	-	-	-	-	<i>0.162</i>	-	-	-	-	-	<i>0.162</i>
Support - Training Cost																		
Equipment	-	-	-	-	-	-	-	-	-	101.136	44	4.450	-	-	-	101.136	44	4.450
Facilities	-	-	-	-	-	-	-	-	-	-	-	0.794	-	-	-	-	-	0.794
<i>Subtotal: Support - Training Cost</i>	-	-	-	-	-	-	-	-	-	-	-	<i>5.244</i>	-	-	-	-	-	<i>5.244</i>
Gross/Weapon System Cost	20,759.000	16	332.144	-	-	-	-	-	-	-	-	5.406	-	-	-	-	-	5.406

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 50	P-1 Line Item Number / Title: 0375R03800 / Grader, Road Mtzd, Hvy, 6X4 (CCE)	Item Number / Title [DODIC]: R03801 / GRADER, MTZD, HVY
----------------------------------------------------------------------------------	----------------------------------------------------------------------------------------	-------------------------------------------------------------------

ID Code (A=Service Ready, B=Not Service Ready) : B **MDAP/MAIS Code:**

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Army	Quantity	-	-	-	-	-
	Total Obligation Authority	-	-	5.406	-	5.406
Total:	Quantity	-	-	-	-	-
Secondary Distribution	Total Obligation Authority	-	-	5.406	-	5.406

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 50: Construction Equipment	P-1 Line Item Number / Title: 0822RA0100 / Scrapers, Earthmoving
----------------------------------------------------------------------------------------------------------------------------------------------------------------------	----------------------------------------------------------------------------

ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
---------------------------------------------------	----------------------------------------	-------------------------------------

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	43	10	1	1	-	1	-	-	-	-	-	55
Gross/Weapon System Cost (<i>\$ in Millions</i>)	294.057	8.061	3.910	4.188	-	4.188	-	-	-	-	-	310.216
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	294.057	8.061	3.910	4.188	-	4.188	-	-	-	-	-	310.216
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	294.057	8.061	3.910	4.188	-	4.188	-	-	-	-	-	310.216

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Thousands</i>)	6,838.535	806.100	3,910.000	4,188.000	-	4,188.000	-	-	-	-	-	5,640.291

Description:

The Heavy Scraper enables the Engineer Support, Horizontal Construction and Vertical Construction Companies with the earth moving capability necessary to construct, maintain and repair airfields, runways, taxiways, and parking aprons, main supply routes, logistical facilities, roads, helipads, motor pools, railroads and ports of entry/debarkation and enhance force infrastructure protection across a range of military operations. It is a self-propelled and articulated framed steering vehicle with an open bowl, two axles, a single diesel engine and pneumatic tires. The 14-18 Cubic Yard, Earth moving Heavy Scraper has the ability to self-load at a reduced production capacity. It provides a hauling and dumping capability to perform efficient tasks in support of earth moving projects. The 14-18 Cubic Yard, Earth moving Heavy Scraper is a commercial off the shelf (COTS) program that provides Army Engineers with essential equipment to perform their road and airfield construction and site preparation missions. The Army Acquisition Objective (AAO) is 668; with 200 Armor Kits.

Construction Equipment Virtual Trainers (CEVT) are commercial off the shelf virtual training devices with software modifications for military unique tasks. These simulators enable the United States Army Engineer School with the capability to more effectively train Engineer Military Occupational Skill (MOS), while reducing maintenance of actual equipment and fuel costs during traditional training. These simulators provide the Engineer Warfighter with a multitude of training scenarios and continuous hands on training on a variety of construction equipment and in various simulated conditions. Use of CEVT increases skills and competency in the operation of equipment. The Army Acquisition Objective (AAO) for the Heavy Scraper CEVT is 33.

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
Army	Quantity	-	1	1	-	1	-	-	-	-
	Total Obligation Authority	-	3.910	4.188	-	4.188	-	-	-	-
AR	Quantity	10	-	-	-	-	-	-	-	-
	Total Obligation Authority	8.061	-	-	-	-	-	-	-	-
Total: Secondary Distribution	Quantity	10	1	1	-	1	-	-	-	-
	Total Obligation Authority	8.061	3.910	4.188	-	4.188	-	-	-	-

Justification:

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 50: Construction Equipment		P-1 Line Item Number / Title: 0822RA0100 / Scrapers, Earthmoving
ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
Line Item MDAP/MAIS Code: N/A		
<p>FY 2021 Base procurement dollars in the amount of \$4.188 million procures one Scraper vehicle, 23 Construction Equipment Virtual Trainers (CEVT) simulators, and all associated fielding and program management support costs. FY 2021 procurement of Scraper vehicles will be through a Defense Logistics Agency Heavy Equipment Procurement Program (DLA HEPP) contract buy.</p> <p>Note: FY 2019 quantity of 10 is incorrect due to systematic error. The correct quantity of 7 in the P5 reflects actual systems procured. FY 2020 quantity of 1 is incorrect due to systematic error. The correct quantity of 5 reflects true programmatic planning.</p> <p>In accordance with Section 1815 of the FY 2008 National Defense Authorization Act (P.L. 110-181), this item is necessary for use by the Active and Reserve Components of the Armed Forces for homeland defense missions, domestic emergency responses, and providing military support to civil authorities.</p>		

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 50: Construction Equipment	P-1 Line Item Number / Title: 4100R04500 / Loaders
----------------------------------------------------------------------------------------------------------------------------------------------------------------------	--------------------------------------------------------------

ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
---------------------------------------------------	----------------------------------------	-------------------------------------

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	1	-	8	8	-	-	-	-	-	9
Gross/Weapon System Cost (<i>\$ in Millions</i>)	367.853	-	0.380	4.521	3.190	7.711	-	-	-	-	-	375.944
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	367.853	-	0.380	4.521	3.190	7.711	-	-	-	-	-	375.944
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	367.853	-	0.380	4.521	3.190	7.711	-	-	-	-	-	375.944

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Thousands</i>)	-	-	380.000	-	398.750	963.875	-	-	-	-	-	41,771.556

Description:

Loader, Scoop, 2.5 Cubic Yard Light Type II is a commercial off-the-shelf loader with minor military modifications. The Light Type II Loader is a general purpose scoop loader which is diesel engine driven, four wheel drive, with an articling frame steering. The loader is equipped with a multi-use four-in-one clam shell bucket and a forklift attachment. It also has the capability to accept a Crew Protection Kit in the form of a replaceable armor C-Kit cab for contingency operations. The Light Type II Loader is fielded to Light Brigade Combat Teams, Concrete Teams, Engineer Support Companies, and the Army training base. The Army Acquisition Objective (AAO) for Light Type II Loader is 271, with 33 Construction Equipment Virtual Trainers (CEVT).

The CEVT are commercial off the shelf virtual training devices with software modifications for military unique tasks. These simulators enable the United States Army Engineer School with the capability to more effectively train Engineer Military Occupational Skill (MOS), while reducing maintenance of actual equipment and fuel costs during traditional training. These simulators provide the Engineer Warfighter with a multitude of training scenarios and continuous hands on training on a variety of construction equipment and in various simulated conditions. Use of CEVT increases skills and competency in the operation of equipment. The Army Acquisition Objective (AAO) for Light Type II Loader Construction Equipment Virtual Trainers (CEVT) is 33.

Loader Scoop, 4.5 and 5.0 Cubic Yard Heavy Type I/II are commercial off-the-shelf loaders with minor military modifications. The Heavy Type I Loader is used for quarry operations and the Type II is used for general construction missions. Each is equipped with a quick couple system for use with a forklift and sweeper attachments. Both loaders are diesel engine driven, four wheel drive, with an articling frame steering. The Heavy Type I/II Loaders have the capability to accept a Crew Protection Kit in the form of a replaceable armor C-Kit cab for contingency operations. The Loaders are fielded to Horizontal Construction Companies, Asphalt and Quarry Teams, Equipment Support Teams, and the Army training base. The AAO for Heavy Loaders is 232.

This program is considered a Critical Dual Use (CDU) system enabling and supporting Defense Support to Civil Authorities (DSCA) operations.

IAW Section 1815 of the FY 2008 NDAA this item is necessary for use by the Active and Reserve Components of the Armed Forces for homeland defense missions, domestic emergency responses, and providing military support to civil authorities.

	Secondary Distribution	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
Army	Quantity	-	1	-	8	8	-	-	-	-
	Total Obligation Authority	-	0.380	4.521	3.190	7.711	-	-	-	-

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2021 Army							Date: February 2020			
Appropriation / Budget Activity / Budget Sub Activity: 2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 50: Construction Equipment					P-1 Line Item Number / Title: 4100R04500 / Loaders					
ID Code (A=Service Ready, B=Not Service Ready): A			Program Elements for Code B Items: N/A			Other Related Program Elements: N/A				
Line Item MDAP/MAIS Code: N/A										

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
Total:	Quantity	-	1	-	8	8	-	-	-	-
Secondary Distribution	Total Obligation Authority	-	0.380	4.521	3.190	7.711	-	-	-	-

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity:
2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 50: Construction Equipment

P-1 Line Item Number / Title:
4100R04500 / Loaders

ID Code (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** N/A **Other Related Program Elements:** N/A

Line Item MDAP/MAIS Code: N/A

Exhibits Schedule					Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-5	M06400 / LOADER, SCOOP TYPE, DD 4WHL, 2-1/2 CU YD	P-5a	A		- / 249.720	- / -	1 / 0.380	- / 4.521	1 / 0.180	1 / 4.701
P-5	R03900 / R03900	P-5a	A		- / 118.133	- / -	- / -	- / -	7 / 3.010	7 / 3.010
P-40	Total Gross/Weapon System Cost				- / 367.853	- / -	1 / 0.380	- / 4.521	8 / 3.190	8 / 7.711

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

Justification:

FY 2021 Base procurement dollars in the amount of \$4.521 million supports the procurement of 33 Construction Equipment Virtual Trainers (CEVT), implement associated building upgrades for simulator facilities, and provide necessary program support.

FY 2021 OCO procurement dollars in the amount of \$3.010 million procures seven commercial variants of the Type I/II Heavy Loader to replace assets redirected in support of an Operational Needs Statement (ONS) for Operation Freedom Sentinel (OFS).

FY 2021 OCO procurement dollars in the amount of \$0.180 million procures one commercial variant of the Type II Light Loader to replace an asset redirected in support of an Operational Needs Statement (ONS) for Operation Freedom Sentinel (OFS).

In accordance with Section 1815 of the FY 2008 National Defense Authorization Act (P.L. 110-181), this item is necessary for use by the active and reserve components of the Armed Forces for homeland defense missions, domestic emergency responses, and providing military support to civil authorities.

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 50		P-1 Line Item Number / Title: 4100R04500 / Loaders
		Item Number / Title [DODIC]: M06400 / LOADER, SCOOP TYPE, DD 4WHL, 2-1/2 CU YD

ID Code (A=Service Ready, B=Not Service Ready) : A	MDAP/MAIS Code:
-----------------------------------------------------------	------------------------

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Procurement Quantity (Units in Each)	-	-	1	-	1	1
Gross/Weapon System Cost (\$ in Millions)	249.720	-	0.380	4.521	0.180	4.701
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	249.720	-	0.380	4.521	0.180	4.701
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	249.720	-	0.380	4.521	0.180	4.701

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (\$ in Millions)	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Thousands)	-	-	380.000	-	180.000	4,701.000

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
Hardware Cost																		
Non Recurring Cost																		
Hardware - Light Loaders, Scoop 2.5 CU YD ^(†)	130.000	628	81.640	-	-	-	-	-	-	-	-	-	130.000	1	0.130	130.000	1	0.130
Hardware - Heavy Loader, Scoop Type, 4.5 CU YD ^(†)	-	-	-	-	-	-	380.000	1	0.380	-	-	-	-	-	-	-	-	-
<i>Subtotal: Non Recurring Cost</i>	-	-	81.640	-	-	-	-	-	0.380	-	-	-	-	-	0.130	-	-	0.130
Subtotal: Hardware Cost	-	-	81.640	-	-	-	-	-	0.380	-	-	-	-	-	0.130	-	-	0.130
Support - Fielding Cost																		
Fielding	-	-	104.972	-	-	-	-	-	-	-	-	-	-	-	0.050	-	-	0.050
<i>Subtotal: Support - Fielding Cost</i>	-	-	104.972	-	-	-	-	-	-	-	-	-	-	-	0.050	-	-	0.050
Support - Program Management Cost																		
Government Management	-	-	63.108	-	-	-	-	-	-	-	-	0.500	-	-	-	-	-	0.500
<i>Subtotal: Support - Program Management Cost</i>	-	-	63.108	-	-	-	-	-	-	-	-	0.500	-	-	-	-	-	0.500
Support - Training Cost																		
Equipment	-	-	-	-	-	-	-	-	-	121.848	33	4.021	-	-	-	121.848	33	4.021

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 50	P-1 Line Item Number / Title: 4100R04500 / Loaders	Item Number / Title [DODIC]: M06400 / LOADER, SCOOP TYPE, DD 4WHL, 2-1/2 CU YD
ID Code (A=Service Ready, B=Not Service Ready) : A		MDAP/MAIS Code:

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
<i>Subtotal: Support - Training Cost</i>	-	-	-	-	-	-	-	-	-	-	-	4.021	-	-	-	-	-	4.021
Gross/Weapon System Cost	-	-	249.720	-	-	-	380.000	1	0.380	-	-	4.521	180.000	1	0.180	4,701.000	1	4.701

Remarks:

NOTE: The increase in the cost of training is due to the FY 2021 procurement of 33 Construction Equipment Virtual Trainers (CEVT).

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Army	Quantity	-	1	-	1	1
	Total Obligation Authority	-	0.380	4.521	0.180	4.701
Total:	Quantity	-	1	-	1	1
Secondary Distribution	Total Obligation Authority	-	0.380	4.521	0.180	4.701

(t) indicates the presence of a P-5a

UNCLASSIFIED

Exhibit P-5a, Procurement History and Planning: PB 2021 Army								Date: February 2020				
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 50			P-1 Line Item Number / Title: 4100R04500 / Loaders					Item Number / Title [DODIC]: M06400 / LOADER, SCOOP TYPE, DD 4WHL, 2-1/2 CU YD				
Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty (Each)	Unit Cost (\$ K)	Specs Avail Now?	Date Revision Available	RFP Issue Date
Hardware - Light Loaders, Scoop 2.5 CU YD	✓	2021	Caterpillar Inc. / Peoria, IL	SS / FFP	Philadelphia, PA	Jul 2021	Jan 2022	1	130.000	N		
Hardware - Heavy Loader, Scoop Type, 4.5 CU YD		2020	Caterpillar Inc. / Peoria, IL	SS / FFP	Philadelphia, PA	Jul 2020	Jan 2021	1	380.000	N		

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 50		P-1 Line Item Number / Title: 4100R04500 / Loaders
		Item Number / Title [DODIC]: R03900 / R03900

ID Code (A=Service Ready, B=Not Service Ready) : A	MDAP/MAIS Code:
-----------------------------------------------------------	------------------------

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Procurement Quantity (Units in Each)	-	-	-	-	7	7
Gross/Weapon System Cost (\$ in Millions)	118.133	-	-	-	3.010	3.010
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	118.133	-	-	-	3.010	3.010
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	118.133	-	-	-	3.010	3.010

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (\$ in Millions)	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Thousands)	-	-	-	-	430.000	430.000

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
Hardware Cost																		
Non Recurring Cost																		
Hardware - Heavy Loader, Scoop Type, 4.5 CU YD ⁽¹⁾	220.000	289	63.580	-	-	-	-	-	-	-	-	-	372.571	7	2.608	372.571	7	2.608
Subtotal: Non Recurring Cost	-	-	63.580	-	-	-	-	-	-	-	-	-	-	-	2.608	-	-	2.608
Subtotal: Hardware Cost	-	-	63.580	-	-	-	-	-	-	-	-	-	-	-	2.608	-	-	2.608
Support - Fielding Cost																		
Fielding	-	-	19.113	-	-	-	-	-	-	-	-	-	-	-	0.202	-	-	0.202
Subtotal: Support - Fielding Cost	-	-	19.113	-	-	-	-	-	-	-	-	-	-	-	0.202	-	-	0.202
Support - Program Management Cost																		
Government Management	-	-	35.440	-	-	-	-	-	-	-	-	-	-	-	0.200	-	-	0.200
Subtotal: Support - Program Management Cost	-	-	35.440	-	-	-	-	-	-	-	-	-	-	-	0.200	-	-	0.200
Gross/Weapon System Cost	-	-	118.133	-	-	-	-	-	-	-	-	-	430.000	7	3.010	430.000	7	3.010

Remarks:

FY 2021 OCO procurement of commercial Loaders vehicles will utilize the Defense Logistics Agency's (DLA) Heavy Equipment Procurement Program (HEPP) contract to procure Commercial-Off-The-Shelf loaders to replace training vehicles that will be fielded in support of Operational Needs Statements (ONS).

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 50	P-1 Line Item Number / Title: 4100R04500 / Loaders	Item Number / Title [DODIC]: R03900 / R03900
----------------------------------------------------------------------------------	--------------------------------------------------------------	--------------------------------------------------------

ID Code (A=Service Ready, B=Not Service Ready) : A **MDAP/MAIS Code:**

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Army	Quantity	-	-	-	7	7
	Total Obligation Authority	-	-	-	3.010	3.010
Total: Secondary Distribution	Quantity	-	-	-	7	7
	Total Obligation Authority	-	-	-	3.010	3.010

(t) indicates the presence of a P-5a

UNCLASSIFIED

Exhibit P-5a, Procurement History and Planning: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 50	P-1 Line Item Number / Title: 4100R04500 / Loaders	Item Number / Title [DODIC]: R03900 / R03900
----------------------------------------------------------------------------------	--------------------------------------------------------------	--------------------------------------------------------

Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty <i>(Each)</i>	Unit Cost <i>(\$ K)</i>	Specs Avail Now?	Date Revision Available	RFP Issue Date
Hardware - Heavy Loader, Scoop Type, 4.5 CU YD	✓	2021	Caterpillar Inc. / Peoria, IL	SS / FFP	Philadelphia, PA	Jul 2021	Jan 2022	7	372.571	N		

Remarks:
 FY 2021 OCO procurement of commercial Loaders vehicles will utilize the Defense Logistics Agency's (DLA) Heavy Equipment Procurement Program (HEPP) contract to procure Commercial-Off-The-Shelf loaders to replace training vehicles that will be fielded in support of Operational Needs Statements (ONS).

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 50: Construction Equipment	P-1 Line Item Number / Title: 4428X01500 / Hydraulic Excavator
----------------------------------------------------------------------------------------------------------------------------------------------------------------------	--------------------------------------------------------------------------

ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
----------------------------------------------------------	-----------------------------------------------	--------------------------------------------

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	13	12	-	-	19	19	-	-	-	-	-	44
Gross/Weapon System Cost (<i>\$ in Millions</i>)	124.457	5.226	0.500	5.186	7.600	12.786	-	-	-	-	-	142.969
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	124.457	5.226	0.500	5.186	7.600	12.786	-	-	-	-	-	142.969
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	124.457	5.226	0.500	5.186	7.600	12.786	-	-	-	-	-	142.969

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Thousands</i>)	9,573.615	435.500	-	-	400.000	672.947	-	-	-	-	-	3,249.295

Description:

The Hydraulic Excavator Type 1 (HYEX-I) enables Combat Engineer units with the capabilities necessary to efficiently fulfill Joint Engineer Mission requirements across all phases of Joint Military Operations and conduct Joint Functions of (1) Movement and Maneuver: Combat Roads and Trails, Gap Crossing, Lines of Communications and/or Supply Routes, Vegetation Removal in Support of IEDD Intermediate Staging Bases, Barriers and Obstacles, Breaching and Clearing Operations; (2) Protection: Hardening; Field Fortification Support; (3) Sustainment: Base Camp Development, Construction and Repair of Infrastructure and Facilities. The HYEX Type 1 enables U.S. Army Engineers with the capabilities to perform precision excavation, land clearing, and lifting and loading various materials and aggregates into dump trucks, concrete mobile mixers, hoppers, and aggregate bins in an expeditious manner. These capabilities also include supporting and operating GP Bucket, Rock Bucket, Hydraulic Hammer, Hydraulic Plate Compactor, Barrier Grapple, Crush-all, and Vegetation Removal Tool. A Commercial-Off-The-Shelf (COTS), the HYEX Type 1 has a Crew Protection Kit, Rifle Mount, NATO Receptacle, JP-8 Fuel Compatibility, and CARC paint. The HYEX is fielded to Horizontal Construction Companies, Vertical Companies, Multi-Role Bridge Companies, and the TRADOC training base. The HYEX Type 1 Army Acquisition Objective (AAO) is 465.

The Construction Equipment Virtual Trainers (CEVT) are commercial off the shelf virtual training devices with software modifications for military unique tasks. These simulators enable the United States Army Engineer School with the capability to more effectively train Engineer Military Occupational Skill (MOS), while reducing maintenance of actual equipment and fuel costs during traditional training. These simulators provide the Engineer Warfighter with a multitude of training scenarios and continuous hands on training on a variety of construction equipment and in various simulated conditions. Use of CEVT increases skills and competency in the operation of equipment. The HYEX Type 1 Army Acquisition Objective (AAO) for Construction Equipment Virtual Trainers (CEVT) is 33. The minimum monthly sustaining rate is 1, economic rate is 5, and maximum rate is 8 per month.

Capabilities of HYEX are as follows for each platform:

Horizontal Construction Company, TOE 05417R000: Provides personnel and equipment to perform Engineering tasks such as clearing and grubbing operations; haul, grade, shape, compact, cut and fill material; emplace culverts; remove snow/ice; construct drainage structures; conduct burrow pit operations; provide dust control operations; construct basecamps, air landing platforms, Forward Area Rearming and refueling Points (FARPS), supply routes, roads, control points, fire bases, tank ditches, Ammunition Supply Points (ASPCs), and field hospital platforms; prepare river crossing sites; and support port repair due to Hydraulic Excavator (HYEX).

Vertical Construction Company, TOE 05418R000: Provides personnel and equipment to perform Engineering tasks such as constructing basecamps, internment facilities; and constructs, repairs, maintains vertical infrastructures.

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 50: Construction Equipment	P-1 Line Item Number / Title: 4428X01500 / Hydraulic Excavator
----------------------------------------------------------------------------------------------------------------------------------------------------------------------	--------------------------------------------------------------------------

ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
----------------------------------------------------------	-----------------------------------------------	--------------------------------------------

Line Item MDAP/MAIS Code: N/A

Engineer Support Company, TOEs 05419R000/100: Provides personnel and equipment to conduct engineering missions including Rapid Runway Repair (RRR), initial basecamp construction, non-explosive obstacle breaching, non-explosive area clearing, constructing tactical Unmanned Aerial Vehicle (UAV) airfields, helicopter Landing Zones (HLZs), and Assault Landing Zones (ALZs) to Division/Corps and Maneuver BCT.

Multirole Bridge Company, TOE 05473R000: Provides personnel and equipment to transport, assemble, disassemble, retrieve, and maintain all standard U.S. Army bridging systems, (HYEX conducts dredge operations to emplace bridging assets), and to provide transportation of Palletized Loading System (PLS) configured cargo.

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
Army	Quantity	12	-	-	19	19	-	-	-	-
	Total Obligation Authority	5.226	0.500	5.186	7.600	12.786	-	-	-	-
Total: Secondary Distribution	Quantity	12	-	-	19	19	-	-	-	-
	Total Obligation Authority	5.226	0.500	5.186	7.600	12.786	-	-	-	-

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity:
2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 50: Construction Equipment

P-1 Line Item Number / Title:
4428X01500 / Hydraulic Excavator

ID Code (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** N/A **Other Related Program Elements:** N/A

Line Item MDAP/MAIS Code: N/A

Exhibits Schedule					Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-5	X01500 / Hydraulic Excavator	P-5a	A		13 / 124.457	12 / 5.226	- / 0.500	- / 5.186	19 / 7.600	19 / 12.786
P-40	Total Gross/Weapon System Cost				13 / 124.457	12 / 5.226	- / 0.500	- / 5.186	19 / 7.600	19 / 12.786

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

Justification:

FY 2021 Base procurement dollars in the amount of \$5.186 million procures and 33 Construction Equipment Virtual Trainers (CEVT) and HYEX program support.

FY 2021 OCO procurement dollars in the amount of \$7.600 million procures 19 Hydraulic Excavators Type 1 (HYEX-I) vehicles.

Note 1: This program is considered a Critical Dual Use (CDU) system.

Note 2: Note: FY 2019 quantity of 12 is incorrect due to systematic error. The correct quantity of 11 in the P5 reflects actual systems procured.

In accordance with Section 1815 of the FY 2008 National Defense Authorization Act (P.L. 110-181), this item is necessary for use by the Active and Reserve Components of the Armed Forces for homeland defense missions, domestic emergency responses, and providing military support to civil authorities.

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 50	P-1 Line Item Number / Title: 4428X01500 / Hydraulic Excavator	Item Number / Title [DODIC]: X01500 / Hydraulic Excavator

ID Code (A=Service Ready, B=Not Service Ready) : A	MDAP/MAIS Code:
-----------------------------------------------------------	------------------------

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Procurement Quantity (Units in Each)	13	12	-	-	19	19
Gross/Weapon System Cost (\$ in Millions)	124.457	5.226	0.500	5.186	7.600	12.786
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	124.457	5.226	0.500	5.186	7.600	12.786
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	124.457	5.226	0.500	5.186	7.600	12.786

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (\$ in Millions)	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Thousands)	9,573.615	435.500	-	-	400.000	672.947

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
Flyaway Cost																		
Recurring Cost																		
System Engineering/ Program Management	-	-	1.097	-	-	0.041	-	-	0.015	-	-	0.150	-	-	0.228	-	-	0.378
Data	-	-	0.100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Support Equipment	-	-	0.600	-	-	-	-	-	-	-	-	-	-	1.102	-	-	-	1.102
Fielding	-	-	3.641	-	-	0.654	-	-	0.485	-	-	0.730	-	-	-	-	-	0.730
Training	-	-	0.010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
System Engineering Program Management - IMCOM	-	-	-	-	-	0.116	-	-	-	-	-	-	-	-	-	-	-	-
Fielding - IMCOM	-	-	-	-	-	0.785	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Recurring Cost	-	-	5.448	-	-	1.596	-	-	0.500	-	-	0.880	-	-	1.330	-	-	2.210
Subtotal: Flyaway Cost	-	-	5.448	-	-	1.596	-	-	0.500	-	-	0.880	-	-	1.330	-	-	2.210
Hardware Cost																		
Recurring Cost																		
HYEX - Commercial Variant ^(†)	381.439	312	119.009	330.000	2	0.660	-	-	-	-	-	-	330.000	19	6.270	330.000	19	6.270
HYEX - Commercial Variant - IMCOM	-	-	-	330.000	9	2.970	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Recurring Cost	-	-	119.009	-	-	3.630	-	-	-	-	-	-	-	-	6.270	-	-	6.270
Subtotal: Hardware Cost	-	-	119.009	-	-	3.630	-	-	-	-	-	-	-	-	6.270	-	-	6.270
Support - Training Cost																		

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army												Date: February 2020					
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 50						P-1 Line Item Number / Title: 4428X01500 / Hydraulic Excavator						Item Number / Title [DODIC]: X01500 / Hydraulic Excavator					
ID Code (A=Service Ready, B=Not Service Ready) : A												MDAP/MAIS Code:					

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
Facilities	-	-	-	-	-	-	-	-	-	-	-	0.500	-	-	-	-	-	0.500
Equipment	-	-	-	-	-	-	-	-	-	115.333	33	3.806	-	-	-	115.333	33	3.806
<i>Subtotal: Support - Training Cost</i>	-	-	-	-	-	-	-	-	-	-	-	4.306	-	-	-	-	-	4.306
Gross/Weapon System Cost	9,573.615	13	124.457	435.500	12	5.226	-	-	0.500	-	-	5.186	400.000	19	7.600	672.947	19	12.786

Remarks:

As a result of Congressional Omnibus ATR, HYEX received a plus up of \$3.871M in FY19. These funds belong to IMCOM.

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Army	Quantity	12	-	-	19	19
	Total Obligation Authority	5.226	0.500	5.186	7.600	12.786
Total: Secondary Distribution	Quantity	12	-	-	19	19
	Total Obligation Authority	5.226	0.500	5.186	7.600	12.786

(t) indicates the presence of a P-5a

UNCLASSIFIED

Exhibit P-5a, Procurement History and Planning: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 50	P-1 Line Item Number / Title: 4428X01500 / Hydraulic Excavator	Item Number / Title [DODIC]: X01500 / Hydraulic Excavator
----------------------------------------------------------------------------------	--------------------------------------------------------------------------	---------------------------------------------------------------------

Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty <i>(Each)</i>	Unit Cost <i>(\$ K)</i>	Specs Avail Now?	Date Revision Available	RFP Issue Date
HYEX - Commercial Variant		2016	John Deere / Kernersville, NC	SS / FFP	Warren,MI	Jan 2016	Jun 2016	0	0.000	N		

Remarks:
FY21 procurement of HYEX vehicles will be through a Defense Logistics Agency Heavy Equipment Procurement Program (DLA HEPP) contract buy.

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 50: Construction Equipment	P-1 Line Item Number / Title: 4700M05800 / Tractor, Full Tracked
----------------------------------------------------------------------------------------------------------------------------------------------------------------------	----------------------------------------------------------------------------

ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
----------------------------------------------------------	-----------------------------------------------	--------------------------------------------

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	10	0	22	-	9	9	-	-	-	-	-	41
Gross/Weapon System Cost (<i>\$ in Millions</i>)	609.584	-	13.060	4.715	7.450	12.165	-	-	-	-	-	634.809
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	609.584	-	13.060	4.715	7.450	12.165	-	-	-	-	-	634.809
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	609.584	-	13.060	4.715	7.450	12.165	-	-	-	-	-	634.809

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Thousands</i>)	60,958.400	-	593.636	-	827.778	1,351.667	-	-	-	-	-	15,483.146

Description:

The T-9 Medium Type I Dozers with winch enables Combat Engineer, Quartermaster and Transportation Companies with the capabilities necessary to construct and maintain the infrastructure required to freely conduct and sustain activities across the range of military operations, including breaching operations, port opening operations and emplacement of standard and nonstandard Army bridging systems for wet and dry gap crossings. These capabilities include operator armor protection, creating obstacles, shaping the terrain and repairing lines of communication resulting in increased mobility, maneuverability, deployability and sustainability. The T-9 Medium Type II Dozers with ripper enables Engineer and Vertical Construction Companies with the capabilities necessary to conduct horizontal and vertical construction tasks to establish and maintain the infrastructure required to freely conduct and sustain activities across the range of military operations, including breaching operations and emplacement of standard and nonstandard Army bridging systems for wet and dry gap crossings. These capabilities include operator armor protection, creating obstacles, shaping the terrain and repairing lines of communication resulting in increased mobility, maneuverability, deployability and sustainability. The T-9 Dozer enables Cross Functional Teams (CFT) in the Shoot, Communicate & Sustain phase. The Construction Equipment Virtual Trainers (CEVT) are commercial off the shelf virtual training devices with software modifications for military unique tasks. These simulators enable the United States Army Engineer School with the capability to more effectively train Engineer Military Occupational Skill (MOS), while reducing maintenance of actual equipment and fuel costs during traditional training. These simulators provide the Engineer Warfighter with a multitude of training scenarios and continuous hands on training on a variety of construction equipment and in various simulated conditions. The T-9 Medium Dozer Type I with ripper AAO is 844. The T-9 Medium Dozer Type II with winch the AAO is 484.

The T-5 Light Type I Dozers with winch enables Engineer Support Companies, Stryker Brigade Combat Teams and Armored Brigade Combat Teams with the capabilities necessary to effectively conduct horizontal and vertical construction tasks with emphasis on rapid airfield repair and military facilities to establish and maintain the infrastructure required to conduct and sustain activities across the range of military operations. These capabilities include clearing, grubbing, stripping, dozing, rough grading, cutting and filling, loosening of materiel prior to excavation, reducing obstacles and towing in support of general engineering tasks. The T-5 Light Type II Dozers with ripper enables Engineer Support Companies, Stryker Brigade Combat Teams and Armored Brigade Combat Teams with the capabilities necessary to conduct horizontal and vertical construction tasks with emphasis on rapid airfield repair, military facilities to establish and maintain the infrastructure required to conduct and sustain activities across the range of military operations. These capabilities include clearing, grubbing, stripping, dozing, rough grading, cutting and filling, loosening of materiel prior to excavation, reducing obstacles and towing in support of general engineering tasks. The T-5 Light Dozer Type I with ripper AAO is 145. The T-5 Light Dozer Type II with winch the AAO is 159.

The CEVT supports the National Defense Strategy goal of increased ingenuity in training commercial off the shelf virtual training devices with software modifications for military unique tasks. These simulators enable the United States Army Engineer School with the capability to effectively train Engineer Military Occupational Skill (MOS), while reducing maintenance of actual equipment and fuel costs during traditional training. The simulators provide the Engineer Warfighter with a multitude of training scenarios and continuous hands on training on a variety of construction equipment and in various simulated conditions. Use of

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 50: Construction Equipment		P-1 Line Item Number / Title: 4700M05800 / Tractor, Full Tracked

ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
----------------------------------------------------------	-----------------------------------------------	--------------------------------------------

Line Item MDAP/MAIS Code: N/A

CEVT increases skills and competency in the operation of equipment. CEVT also enables for unique training scenarios that are deemed too risky on actual equipment, thereby supporting the National Defense Strategy goal of increased ingenuity in training. The Army Acquisition Objective (AAO) for the Medium Dozer Construction Equipment Virtual Trainers (CEVT) is 33.

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
Army	Quantity	-	20	-	9	9	-	-	-	-
	Total Obligation Authority	-	12.410	4.715	7.450	12.165	-	-	-	-
ANG	Quantity	-	1	-	-	-	-	-	-	-
	Total Obligation Authority	-	0.325	-	-	-	-	-	-	-
AR	Quantity	-	1	-	-	-	-	-	-	-
	Total Obligation Authority	-	0.325	-	-	-	-	-	-	-
Total:	Quantity	-	22	-	9	9	-	-	-	-
Secondary Distribution	Total Obligation Authority	-	13.060	4.715	7.450	12.165	-	-	-	-

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity:
2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 50: Construction Equipment

P-1 Line Item Number / Title:
4700M05800 / Tractor, Full Tracked

ID Code (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** N/A **Other Related Program Elements:** N/A

Line Item MDAP/MAIS Code: N/A

Exhibits Schedule					Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-5	M06100 / TRACTOR FULL TRACKED, MED T-9	P-5a	A		10 / 609.584	0 / -	22 / 13.060	- / 4.715	9 / 7.450	9 / 12.165
P-40	Total Gross/Weapon System Cost				10 / 609.584	0 / -	22 / 13.060	- / 4.715	9 / 7.450	9 / 12.165

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

Justification:
 FY 2021 Base Procurement dollars in the amount of \$4.715 million will procure Construction Equipment Virtual Trainers (CEVT), implement associated building upgrades for simulator facilities, and provide for program management support costs.

 FY 2021 OCO (Operation Freedom Sentinel) Procurement dollars in the amount of \$7.450 million will procure nine T-9 Dozers with armor kits and fund necessary support in support of Operation Freedom Sentinel.

 Note: FY 2020 quantity of 22 is incorrect due to systematic error. The correct quantity of 14 in the P5, P5a, and P21 reflects actual systems procured.

 In accordance with Section 1815 of the FY 2008 National Defense Authorization Act (P.L. 110-81), this item is necessary for use by the Active and Reserve Components of the Armed Forces for homeland defense missions, domestic emergency responses, and providing military support to civil authorities.

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 50	P-1 Line Item Number / Title: 4700M05800 / Tractor, Full Tracked	Item Number / Title [DODIC]: M06100 / TRACTOR FULL TRACKED, MED T-9

ID Code (A=Service Ready, B=Not Service Ready) : A	MDAP/MAIS Code:
-----------------------------------------------------------	------------------------

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Procurement Quantity (Units in Each)	10	0	22	-	9	9
Gross/Weapon System Cost (\$ in Millions)	609.584	-	13.060	4.715	7.450	12.165
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	609.584	-	13.060	4.715	7.450	12.165
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	609.584	-	13.060	4.715	7.450	12.165

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (\$ in Millions)	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Thousands)	60,958.400	-	593.636	-	827.778	1,351.667

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
Flyaway Cost																		
Recurring Cost																		
Armor kits	-	-	-	-	-	-	120.000	11	1.320	-	-	-	-	-	-	-	-	-
Hardware ^(†)	88.435	1,535	135.748	-	-	-	544.143	14	7.618	-	-	-	-	-	-	-	-	-
System Engineering/ Program Management	-	-	67.539	-	-	-	-	-	0.345	-	-	0.137	-	-	0.032	-	-	0.169
Training	-	-	102.088	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Data	-	-	120.000	-	-	-	-	-	2.009	-	-	-	-	-	0.280	-	-	0.280
Fielding	-	-	184.209	-	-	-	-	-	0.816	-	-	-	-	-	0.560	-	-	0.560
Support Equipment	-	-	-	-	-	-	-	-	0.180	-	-	-	-	-	-	-	-	-
OCO variant with armor kit ^(†)	-	-	-	-	-	-	-	-	-	-	-	-	671.667	9	6.045	671.667	9	6.045
<i>Subtotal: Recurring Cost</i>	-	-	609.584	-	-	-	-	-	12.288	-	-	0.137	-	-	6.917	-	-	7.054
<i>Subtotal: Flyaway Cost</i>	-	-	609.584	-	-	-	-	-	12.288	-	-	0.137	-	-	6.917	-	-	7.054
Support - Contractor Logistics Support (CLS) Cost																		
Oversight	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.533	-	-	0.533
<i>Subtotal: Support - Contractor Logistics Support (CLS) Cost</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.533	-	-	0.533
Support - System Test and Evaluation Cost																		
Development Test and Evaluation	-	-	-	-	-	-	-	-	0.500	-	-	-	-	-	-	-	-	-

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 50	P-1 Line Item Number / Title: 4700M05800 / Tractor, Full Tracked	Item Number / Title [DODIC]: M06100 / TRACTOR FULL TRACKED, MED T-9
ID Code (A=Service Ready, B=Not Service Ready) : A		MDAP/MAIS Code:

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
<i>Subtotal: Support - System Test and Evaluation Cost</i>	-	-	-	-	-	-	-	-	0.500	-	-	-	-	-	-	-	-	-
Support - Training Cost																		
Facilities	-	-	-	-	-	-	-	-	-	-	-	0.500	-	-	-	-	-	0.500
Equipment	-	-	-	-	-	-	-	-	0.272	123.576	33	4.078	-	-	-	123.576	33	4.078
<i>Subtotal: Support - Training Cost</i>	-	-	-	-	-	-	-	-	0.272	-	-	4.578	-	-	-	-	-	4.578
Gross/Weapon System Cost	60,958.400	10	609.584	-	0	-	593.636	22	13.060	-	-	4.715	827.778	9	7.450	1,351.667	9	12.165

Remarks:

Increase in cost for Fielding, Data, and CLS from FY 2020 to FY 2021 is due to the procurement of Dozer OCO variant with armor kits which has a unit cost of \$0.671M as opposed to T-9 Dozers around \$0.540M. The additional funding will all procure additional data and require more fielding and CLS support.

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Army	Quantity	-	20	-	9	9
	Total Obligation Authority	-	12.410	4.715	7.450	12.165
ANG	Quantity	-	1	-	-	-
	Total Obligation Authority	-	0.325	-	-	-
AR	Quantity	-	1	-	-	-
	Total Obligation Authority	-	0.325	-	-	-
Total: Secondary Distribution	Quantity	0	22	-	9	9
	Total Obligation Authority	-	13.060	4.715	7.450	12.165

(t) indicates the presence of a P-5a

UNCLASSIFIED

Exhibit P-5a, Procurement History and Planning: PB 2021 Army							Date: February 2020				
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 50			P-1 Line Item Number / Title: 4700M05800 / Tractor, Full Tracked				Item Number / Title [DODIC]: M06100 / TRACTOR FULL TRACKED, MED T-9				

Cost Elements	OCO	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty (Each)	Unit Cost (\$ K)	Specs Avail Now?	Date Revision Available	RFP Issue Date
Hardware		2020	Caterpillar / Peoria, IL	SS / FFP	Warren, MI	Jul 2020	Jan 2021	14	544.143	N		
OCO variant with armor kit		2021	Caterpillar / Peoria, IL	/	Warren, MI	Jul 2021	Jan 2022	0	0.000	N		

Remarks:
This is a commercial off the shelf (COTS) program.

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 50: Construction Equipment	P-1 Line Item Number / Title: 4734R06701 / All Terrain Cranes
-------------------------------------------------------------------------------------------------------------------------------------------------------------------	-------------------------------------------------------------------------

ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
----------------------------------------------------------	-----------------------------------------------	--------------------------------------------

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	13	8	25	41	-	41	37	36	-	-	-	160
Gross/Weapon System Cost (<i>\$ in Millions</i>)	102.166	13.031	23.003	70.560	-	70.560	75.633	74.274	7.272	7.272	-	373.211
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	102.166	13.031	23.003	70.560	-	70.560	75.633	74.274	7.272	7.272	-	373.211
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	102.166	13.031	23.003	70.560	-	70.560	75.633	74.274	7.272	7.272	-	373.211

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Thousands</i>)	7,858.923	1,628.875	920.120	1,720.976	-	1,720.976	2,044.135	2,063.167	-	-	-	2,332.569

Description:

Family of All Terrain Cranes Type II (Heavy Crane, T2HC) - The Type II Heavy Crane (T2HC) with its 50 Ton lift capacity supports the National Defense Strategy (NDS) by providing critical lift missions including overhead lift, container operations, pile driving, protective barrier emplacement and removal, and port opening/operation capabilities which ensures common domains remain open and free. The T2HC supports Large Scale Combat Operation (LSCO) Gap 8 - Division Wet Gap Crossing Lack Bridging and C2 and LSCO Gap 11 - Brigade Combat Teams (BCTs) Lack Mobility and Lethality by enabling Multi Role Bridging Companies (MRBCs) with the ability to assemble, disassemble, and maintain bridges and bridging components for wet and dry gap crossings. The T2HC is capable of maintaining convoy speeds enabling it to keep up with advancing forces. The T2HC provides protective armor for the driver and operator. The Type II Army Acquisition Objective is 207, and the Army Procurement Objective is 138.

Family of All Terrain Cranes Type I - The FOATC Type I Crane supports the NDS by enabling Engineer Construction Companies, Engineer Companies Vertical Construction, and Clearance Companies with the ability to offload critical supplies such as weapons, ammunition, artillery pieces, fuel and water close to the battlefield to support fast moving operations which ensures common domains remain open and free. The Type I Crane provides critical lift missions including overhead lift, container operations, pile driving, protective barrier emplacement and removal, and port opening/operation capabilities, thereby supporting LSCO Gap 11 - BCTs Lack Mobility and Lethality. Type I is capable of maintaining convoy speeds enabling it to keep up with advancing forces.

Secondary Distribution	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
Army	Quantity	3	17	16	-	16	10	15	-
	Total Obligation Authority	5.543	9.325	33.780	-	33.780	25.980	35.655	7.272
ANG	Quantity	2	5	15	-	15	16	5	-
	Total Obligation Authority	2.910	8.549	22.068	-	22.068	29.424	9.195	-
AR	Quantity	3	3	10	-	10	11	16	-
	Total Obligation Authority	4.578	5.129	14.712	-	14.712	20.229	29.424	-
Total: Secondary Distribution	Quantity	8	25	41	-	41	37	36	-
	Total Obligation Authority	13.031	23.003	70.560	-	70.560	75.633	74.274	7.272

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity:
2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 50: Construction Equipment

P-1 Line Item Number / Title:
4734R06701 / All Terrain Cranes

ID Code (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** N/A **Other Related Program Elements:** N/A

Line Item MDAP/MAIS Code: N/A

Exhibits Schedule					Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-5	R06701 / All Terrain Cranes	P-5a	A		13 / 102.166	8 / 13.031	25 / 23.003	41 / 70.560	- / -	41 / 70.560
P-40	Total Gross/Weapon System Cost				13 / 102.166	8 / 13.031	25 / 23.003	41 / 70.560	- / -	41 / 70.560

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

Justification:

FY 2021 Base procurement dollars in the amount of \$70.560 million procures 41 Family of All Terrain Crane (FOATC) systems and necessary support.

Note: The FOATC systems are considered a Critical Dual Use (CDU) system, enabling and supporting Defense Support to Civil Authorities (DSCA) operations (i.e. disaster relief).

In accordance with Section 1815 of the FY 2008 National Defense Authorization Act (P.L. 110-181), this item is necessary for use by the Active and Reserve Components of the Armed Forces for homeland defense missions, domestic emergency responses, and providing military support to civil authorities.

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army					Date: February 2020					
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 50			P-1 Line Item Number / Title: 4734R06701 / All Terrain Cranes			Item Number / Title [DODIC]: R06701 / All Terrain Cranes				
ID Code (A=Service Ready, B=Not Service Ready) : A					MDAP/MAIS Code:					
Resource Summary			Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total		
Procurement Quantity (Units in Each)			13	8	25	41	-	41		
Gross/Weapon System Cost (\$ in Millions)			102.166	13.031	23.003	70.560	-	70.560		
Less PY Advance Procurement (\$ in Millions)			-	-	-	-	-	-		
Net Procurement (P-1) (\$ in Millions)			102.166	13.031	23.003	70.560	-	70.560		
Plus CY Advance Procurement (\$ in Millions)			-	-	-	-	-	-		
Total Obligation Authority (\$ in Millions)			102.166	13.031	23.003	70.560	-	70.560		
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>										
Initial Spares (\$ in Millions)			-	-	-	-	-	-		
Gross/Weapon System Unit Cost (\$ in Thousands)			7,858.923	1,628.875	920.120	1,720.976	-	1,720.976		

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
Flyaway Cost																		
Recurring Cost																		
System Engineering/ Program Management	-	-	5.962	-	-	0.391	-	-	0.690	-	-	2.117	-	-	-	-	-	2.117
System Test and Evaluation, Production	-	-	3.131	-	-	-	-	-	0.100	-	-	0.100	-	-	-	-	-	0.100
Shipping	-	-	4.507	-	-	-	-	-	1.064	-	-	0.380	-	-	-	-	-	0.380
Fielding	-	-	3.456	-	-	1.247	-	-	1.206	-	-	1.641	-	-	-	-	-	1.641
Engineering Changes	-	-	-	-	-	-	-	-	0.233	-	-	0.150	-	-	-	-	-	0.150
Training	-	-	-	-	-	-	-	-	0.324	-	-	2.144	-	-	-	-	-	2.144
<i>Subtotal: Recurring Cost</i>	-	-	<i>17.056</i>	-	-	<i>1.638</i>	-	-	<i>3.617</i>	-	-	<i>6.532</i>	-	-	-	-	-	<i>6.532</i>
<i>Subtotal: Flyaway Cost</i>	-	-	<i>17.056</i>	-	-	<i>1.638</i>	-	-	<i>3.617</i>	-	-	<i>6.532</i>	-	-	-	-	-	<i>6.532</i>
Hardware Cost																		
Recurring Cost																		
HARDWARE ALL TERRAIN CRANE TYPE II ^(†)	2,254.400	15	33.816	1,424.125	8	11.393	1,384.714	14	19.386	-	-	-	-	-	-	-	-	-
HARDWARE ALL TERRAIN CRANE TYPE I/II ^(†)	-	-	-	-	-	-	-	-	-	1,561.659	41	64.028	-	-	-	1,561.659	41	64.028
<i>Subtotal: Recurring Cost</i>	-	-	<i>33.816</i>	-	-	<i>11.393</i>	-	-	<i>19.386</i>	-	-	<i>64.028</i>	-	-	-	-	-	<i>64.028</i>
Non Recurring Cost																		
Hardware MOTCO Crane	51,294.000	1	51.294	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army												Date: February 2020					
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 50						P-1 Line Item Number / Title: 4734R06701 / All Terrain Cranes						Item Number / Title [DODIC]: R06701 / All Terrain Cranes					
ID Code (A=Service Ready, B=Not Service Ready) : A										MDAP/MAIS Code:							

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
<i>Subtotal: Non Recurring Cost</i>	-	-	51.294	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Hardware Cost</i>	-	-	85.110	-	-	11.393	-	-	19.386	-	-	64.028	-	-	-	-	-	64.028
Gross/Weapon System Cost	7,858.923	13	102.166	1,628.875	8	13.031	920.120	25	23.003	1,720.976	41	70.560	-	-	-	1,720.976	41	70.560

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Army	Quantity	3	17	16	-	16
	Total Obligation Authority	5.543	9.325	33.780	-	33.780
ANG	Quantity	2	5	15	-	15
	Total Obligation Authority	2.910	8.549	22.068	-	22.068
AR	Quantity	3	3	10	-	10
	Total Obligation Authority	4.578	5.129	14.712	-	14.712
Total: Secondary Distribution	Quantity	8	25	41	-	41
	Total Obligation Authority	13.031	23.003	70.560	-	70.560

(t) indicates the presence of a P-5a

UNCLASSIFIED

Exhibit P-5a, Procurement History and Planning: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 50	P-1 Line Item Number / Title: 4734R06701 / All Terrain Cranes	Item Number / Title [DODIC]: R06701 / All Terrain Cranes
----------------------------------------------------------------------------------	-------------------------------------------------------------------------	--------------------------------------------------------------------

Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty <i>(Each)</i>	Unit Cost <i>(\$ K)</i>	Specs Avail Now?	Date Revision Available	RFP Issue Date
HARDWARE ALL TERRAIN CRANE TYPE II		2019	Grove US, LLC / Shady Grove, PA	Option / FFP	WARREN, MI	Feb 2019	Jan 2020	8	1,424.125	N		
HARDWARE ALL TERRAIN CRANE TYPE II		2020	Grove US, LLC / Shady Grove, PA	Option / FFP	WARREN, MI	Feb 2020	Jan 2021	14	1,491.231	N		
HARDWARE ALL TERRAIN CRANE TYPE I/II		2021	TBD / TBD	C / FFP	TBD	Feb 2021	Jan 2022	41	1,561.714	N		

Remarks:
The Family of All Terrain Cranes Type I/II is a Commercial-off-the-Shelf (COTS) system.

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 50: Construction Equipment	P-1 Line Item Number / Title: 7495R05901 / High Mobility Engineer Excavator (HMEE)
----------------------------------------------------------------------------------------------------------------------------------------------------------------------	----------------------------------------------------------------------------------------------

ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
---------------------------------------------------	----------------------------------------	-------------------------------------

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	201	130	57	-	6	6	-	-	-	-	-	394
Gross/Weapon System Cost (<i>\$ in Millions</i>)	393.253	71.748	30.188	-	3.703	3.703	-	-	-	-	-	498.892
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	393.253	71.748	30.188	-	3.703	3.703	-	-	-	-	-	498.892
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	393.253	71.748	30.188	-	3.703	3.703	-	-	-	-	-	498.892

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Thousands</i>)	1,956.483	551.908	529.614	-	617.167	617.167	-	-	-	-	-	1,266.223

Description:

The High Mobility Engineer Excavator Type I (HMEE-I) is a non-developmental item (NDI). The HMEE-I enables Airborne, Construction and Combat Engineer units with the capabilities necessary to conduct light earthmoving, loading and excavation throughout the area of operations in support of airfield and road repair/construction, preparation of bridge sites, base camp/facility sustainment to executing survivability and major construction tasks. Self-deployable, the HMEE-I is used to repair Lines of Communication resulting in increased force mobility, maneuverability, deploy ability, and sustainability. It is capable of traveling up to 60 mph on primary roads, 25 mph on secondary roads, and maintains pace with the Army's current and future combat systems. The minimum monthly sustaining rate for the HMEE-I is six systems per month. The High Mobility Engineer Excavator (Airborne) (HMEE (A)) is an armored, slightly modified HMEE-I that is air-droppable from a C-17 aircraft. The HMEE (A) provides the same excavation and high travel speed (60 mph) capabilities as the HMEE-I. The HMEE (A) will be fielded to Engineer Support Companies and Infantry Brigade Combat Teams (IBCTs) in Airborne units.

The HMEE-I is also the host platform for the Route Clearance Interrogation System (RCIS) enabling the remote detection and limited IED neutralization along routes. The intent is for HMEE-I to incorporate Electrical Over Hydraulic (EoH) upgrades through Engineering Change Proposals (ECPs) which enables remote operations and semi-autonomy of the HMEE. This upgrade would require a revision to the Interactive Electronic Technical Manual (IETM).

The High Mobility Engineer Excavator Type III (HMEE-III) is a Backhoe Loader (BHL) which is a Commercial Off-the-Shelf (COTS) backhoe loader with minor military modifications. The BHL provides the capability to execute general construction missions in the areas of road building, airfield construction, repair and improve road systems, trails and bridges. The BHL also has the capability to accept a Crew Protection Kit in the form of a replaceable armored cab for contingency operations. The BHL is capable of driving up to 25 MPH on improved roads and 7 MPH off-road. The BHL is transported in the air via C-130, C-5, or C-17 aircraft, or across the highway with M916/M870 and M915/M172 truck/trailer combination organic to the unit. The BHL is fielded to Horizontal and Vertical Construction Companies, the Army training base, and other Non-Engineer Units.

The Army Acquisition Objective is: 1,804 (HMEE-I: 1,122/HMEE-III: 682).

Secondary Distribution	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
Army									
Quantity	73	13	-	6	6	-	-	-	-
Total Obligation Authority	45.642	12.326	-	3.703	3.703	-	-	-	-

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 50: Construction Equipment	P-1 Line Item Number / Title: 7495R05901 / High Mobility Engineer Excavator (HMEE)
----------------------------------------------------------------------------------------------------------------------------------------------------------------------	----------------------------------------------------------------------------------------------

ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
---------------------------------------------------	----------------------------------------	-------------------------------------

Line Item MDAP/MAIS Code: N/A

	Secondary Distribution	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
ANG	Quantity	29	24	-	-	-	-	-	-	-
	Total Obligation Authority	13.282	10.992	-	-	-	-	-	-	-
AR	Quantity	28	20	-	-	-	-	-	-	-
	Total Obligation Authority	12.824	6.870	-	-	-	-	-	-	-
Total:	Quantity	130	57	-	6	6	-	-	-	-
Secondary Distribution	Total Obligation Authority	71.748	30.188	-	3.703	3.703	-	-	-	-

Justification:
 FY 2021 OCO procurement dollars in the amount of \$3.703 million will procure six un-armored HMEE-I vehicles with Electric over Hydraulic (EoH) upgrades, special tool kits, transportation, and all necessary programmatic support to fulfill multiple validated Operational Needs Statements (ONS) in support of Operation Freedom's Sentinel. The EoH upgrade increases the unit cost of the vehicle.

This program has no FY 2021 Base procurement funding.

Note: FY 2019 quantity of 130 is incorrect due to systematic error. The correct quantity of 134 in the P5, P5a, and P21 reflects actual systems procured. FY 2020 quantity of 57 is incorrect due to systematic error. The correct quantity of 55 reflects true programmatic planning.

In accordance with Section 1815 of the FY 2008 National Defense Authorization Act (P.L. 110-181), this item is necessary for use by the Active and Reserve Components of the Armed Forces for homeland defense missions, domestic emergency responses, and providing military support to civil authorities.

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 50: Construction Equipment	P-1 Line Item Number / Title: 9090R07001 / Enhanced Rapid Airfield Construction Capap
----------------------------------------------------------------------------------------------------------------------------------------------------------------------	-------------------------------------------------------------------------------------------------

ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
----------------------------------------------------------	-----------------------------------------------	--------------------------------------------

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	77	243	-	-	-	-	-	-	-	-	-	320
Gross/Weapon System Cost (<i>\$ in Millions</i>)	18.734	8.480	-	-	-	-	-	-	-	-	-	27.214
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	18.734	8.480	-	-	-	-	-	-	-	-	-	27.214
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	18.734	8.480	-	-	-	-	-	-	-	-	-	27.214

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Thousands</i>)	243.299	34.897	-	-	-	-	-	-	-	-	-	85.044

Description:

The Engineer Rapid Airfield Construction Capabilities (ERACC) consists of four (4) independent products that enhance the joint commander's capability for Enable Theater Access (ETA) operations. ERACC provides the joint commander the capability enhancement to rapidly construct new airfields, runways and to upgrade existing facilities to meet joint task force needs. This expands operating capacities of Aerial ports Embarkation/Debarcation (APOE/APOD). ERACC Type I, Type II, Type III and Type IV are commercial off the shelf (COTS) programs. Joint U.S. Forces will employ ERACC types (I-IV) individually or as a combined mission based on engineer requirements.

ERACC Type I, Site Selection and Assessment. This capability package is a software centric capability used to rapidly assess potential sites for airfield operations. This capability provides geospatial information, site analysis, terrain visualization, airfield performance predictions, constructability estimations, on-site material characterization, and site design capabilities. The fielding of the ERACC Type I software will be to users of the ENFIRE engineer reconnaissance system as part of the ENFIRE 7.0 software baseline, and will be included in all subsequent baselines. The users include construction engineer platoon leaders, engineer liaison teams, facilities managers, and contracting personnel within Engineer organizations for construction project management, reconnaissance, facilities and inventory management, Tele-engineering, site layout, rudimentary surveying, mapping, and associated reporting. The ERACC Type I system is a software application on the ENFIRE system. The Army Acquisition Objective (AAO) for the Type I is 41 and falls under the management of the Product Director Combat Terrain Information Systems (PdD CTIS).

ERACC Type II, Enhanced Earth moving. This system is a Grade Control System that includes a global positioning system (GPS) and laser leveling system that is installed on a dozer, grader, scraper and Deployable Universal Combat Earth mover (DEUCE). The ERACC Type II enables Combat Engineer units with the capability to efficiently fulfill Joint Engineer Mission requirements across all phases of Joint Military Operations and conduct Joint Functions and Joint Forcible Entry Operations. U.S. Army Engineers employ the ERACC Type II in direct support of Joint Functions of (1) Movement and Maneuver: Combat Roads and Trails, Gap Crossing, Lines of Communications and/or Supply Routes, Intermediate Staging Bases and (2) Sustainment: Base Camp Development, Construction and Repair of Infrastructure and Facilities. U.S. Army Engineers employ ERACC Type II in direct support of Joint Forcible Entry Operations of (1) Forcible Entry Phase III Stabilization of the Lodgment: Repair, Rehabilitation, Expansion, and Upkeep of Runways, Aprons, Taxiways, and Parking areas to support continuous Air-Landing operations and (2) Forcible Entry Phase IV Introduction of Follow-on Forces: Ports of Debarcation are maintained to maximize and sustain throughput for follow-on forces. A commercial Grade Control System that is cross-functional and fully inter-operable on Dozers, Graders, Motorized Scrapers, and the Deployable Universal Combat Earth mover (DEUCE), the ERACC Type II improves construction productivity by essentially eliminating operator error, increasing earth moving efficiency and reducing project completion times. The ERACC Type II imports site design data produced by the survey and design team; stores and provides a 3-D display for equipment operators; tracks machine location, and provides cut & fill information for the operator without the use of grade stakes. The AAO for the Type II is 476 and will be procured by Product Manager (PdM) Combat Engineer/Material Handling Equipment (CE/MHE).

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 50: Construction Equipment	P-1 Line Item Number / Title: 9090R07001 / Enhanced Rapid Airfield Construction Capap
----------------------------------------------------------------------------------------------------------------------------------------------------------------------	-------------------------------------------------------------------------------------------------

ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
----------------------------------------------------------	-----------------------------------------------	--------------------------------------------

Line Item MDAP/MAIS Code: N/A

ERACC Type III, Mobile Technical Engineer Lab (MTEL) is an integration of commercially available non-developmental items. MTEL effort is a C130 airplane Low Velocity Air Drop-able (LVAD)/CH-47 helicopter sling transportable package enhancing a modularly designed capability to rapidly open new airfields and runways, and/or upgrade existing facilities to meet joint task force needs. The MTEL provides a soil test and survey capability utilizing a utility vehicle. This allows the ERACC Team to quickly understand the composition of the soil to determine feasibility for construction of an airfield. The MTEL can also be used for recon and scouting once the lab package is removed. The fielding of the MTEL will be within Engineer Support Company and Engineer Support Teams. The ERACC Type III AAO is 86 and falls under the management of PdM Combat Engineer/Material Handling Equipment (CE/MHE).

ERACC Type IV, Soil Stabilization. This system is essential to mix soil stabilization products with soil to produce desired stabilized base layers suitable for aircraft traffic operations. This system supports rapid construction and or expansion of airfield operation capacities. It will also be employed during the construction/upgrading of helipads as a means to prevent brownout conditions from occurring during helicopter landing and takeoff operations. The machine is equipped with an on-board automated liquid distribution system that matches the desired liquid polymer application rate to the machines ground speed. It has the capability to continuously operate for a period of 10 hours. The Soil Reclaimer Stabilizer will be fielded to the Rapidly Deployable Earth moving-Light (RDE-L) Platoon within the Engineer Support Company (ESC), Engineer Survey and Design Sections, Engineer Geo-spatial Cells, Forward Engineer Support Teams, and Technical Engineer Sections. The ERACC Type IV AAO is 31 and falls under the management of PdM Combat Engineer/Material Handling Equipment (CE/MHE).

	Secondary Distribution	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
Army	Quantity	243	-	-	-	-	-	-	-	-
	Total Obligation Authority	8.480	-	-	-	-	-	-	-	-
Total: Secondary Distribution	Quantity	243	-	-	-	-	-	-	-	-
	Total Obligation Authority	8.480	-	-	-	-	-	-	-	-

Justification:
This program has no FY 2021 Base funding.

Note: FY 2019 quantity of 243 is incorrect due to systematic error. The correct quantity of zero reflects actual systems procured.

In accordance with Section 1815 of the FY 2008 National Defense Authorization Act (P.L. 110-181), this item is necessary for use by the Active and Reserve Components of the Armed Forces for homeland defense missions, domestic emergency responses, and providing military support to civil authorities.

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 50: Construction Equipment	P-1 Line Item Number / Title: 9120M05500 / Const Equip ESP
----------------------------------------------------------------------------------------------------------------------------------------------------------------------	----------------------------------------------------------------------

ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
----------------------------------------------------------	-----------------------------------------------	--------------------------------------------

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	140	188	177	25	1	26	27	25	25	25	-	633
Gross/Weapon System Cost (<i>\$ in Millions</i>)	408.726	33.289	38.660	8.925	0.657	9.582	9.469	8.926	8.926	8.926	-	526.504
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	408.726	33.289	38.660	8.925	0.657	9.582	9.469	8.926	8.926	8.926	-	526.504
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	408.726	33.289	38.660	8.925	0.657	9.582	9.469	8.926	8.926	8.926	-	526.504

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Thousands</i>)	2,919.471	177.069	218.418	357.000	657.000	368.538	350.704	357.040	357.040	357.040	-	831.760

Description:

The Construction Equipment (CE) Extended Service Program (ESP) (SLEP) funds the critical recapitalization of the Army's complete portfolio of construction equipment, described below. This program enables the Army to gain improve operational readiness and bridge the gap until future opportunities exist for new system procurement by modernizing these vehicle systems through new technology insertion and adding useful life by rebuilding and returning the vehicles to a like-new condition (zero hours and zero miles). Recapitalization and SLEP allows the Army to maintain critical combat engineer and construction equipment capabilities to build and repair roads, airfields, and other infrastructure within a theater of operations and necessary for breaching operations, port opening operations and emplacement of standard and nonstandard Army bridging systems for wet and dry gap crossings. The SLEP allows the Army to maintain Combat Engineer and Material Handling Equipment critical capability to build/repair roads, airfields, and other infrastructure within a theater of operations. The SLEP is considered commercial off the shelf (COTS). The systems below currently fall under SLEP.

The D-7G Medium Dozer (Tractor, Full-Track) is a full tracked tractor with medium pull bar and a winch or ripper. The dozers perform earth moving operations and supports building and maintaining roads, airfields and shelters.

The Scraper (613C) is a non-sectionalized/sectionalized scraper used by Engineer Support Companies for earthmoving maintenance and construction of roads and airfields. The sectionalized scraper can be sectionalized into two sections for transport by helicopter. The Scraper (621B) consists of a scraper section that is towed by a tractor section. The tractor has a 330 Horsepower diesel engine, and 8 speed transmission that propels the Scraper up to 31 mph and an operator cab with ROPS.

The Deployable Universal Combat Earthmover (DEUCE) is a rubber-tracked dozer used in clearing, leveling, and excavation operations. It is C-130 airplane transportable and can be dropped by parachute at low velocity. It can travel at speeds up to 30 miles per hour (MPH) eliminating the typical construction equipment requirement of trailers and additional haul assets. The DEUCE rubber tracks allow construction, loading, and off-loading on airfields and paved roads without damage. No replacement solution provides these capabilities at this time.

The Dual Steel Wheel Roller (DSWR) is a self-propelled vehicle consisting of two steel drums, a diesel engine, and a hydrostatic drive. It is a commercial system used to compact bituminous material in paving operations.

The High Speed Compactor (HSC) is equipped with articulated steering, a dozer blade, a diesel engine, and has segmented impact pads on each of the four drums. It is capable of compacting various soil types in forward or reverse at speeds up to 12 MPH.

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 50: Construction Equipment	P-1 Line Item Number / Title: 9120M05500 / Const Equip ESP
----------------------------------------------------------------------------------------------------------------------------------------------------------------------	----------------------------------------------------------------------

ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
----------------------------------------------------------	-----------------------------------------------	--------------------------------------------

Line Item MDAP/MAIS Code: N/A

The Vibratory Rollers Type I, Type II, and Type III are self-propelled single drum rollers equipped with vibratory action, and are used to level and compact all soil types.

The High Mobility Engineer Excavator Type I (HMEE-I) is a non-developmental, military unique vehicle that can travel up to 60 mph on primary roads, and up to 25 mph on secondary roads. The high mobility of the HMEE-I is part of the Rapid Tactical Earthmoving force and is used for clearing rubble and debris from routes and airfields; constructing airstrips, providing survivability positions for critical assets like C2, radar and logistics, improving ford sites, supporting limited CS & CSS missions in the forward area of theater.

The Grader (130G) vehicle is air transportable, equipped with diesel engine and articulated steering. The vehicle has an enclosed cab with rollover protection structure which can be removed during preparation for transport or when an armored kit is installed. The grader is capable of producing a 12 foot path.

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
Army	Quantity	27	47	7	1	8	11	7	7	7
	Total Obligation Authority	5.550	10.913	3.385	0.657	4.042	4.795	4.252	4.092	2.976
ANG	Quantity	102	75	9	-	9	8	9	9	9
	Total Obligation Authority	17.846	16.008	2.770	-	2.770	2.337	2.337	2.417	2.975
AR	Quantity	59	55	9	-	9	8	9	9	9
	Total Obligation Authority	9.893	11.739	2.770	-	2.770	2.337	2.337	2.417	2.975
Total: Secondary Distribution	Quantity	188	177	25	1	26	27	25	25	25
	Total Obligation Authority	33.289	38.660	8.925	0.657	9.582	9.469	8.926	8.926	8.926

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity:
2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 50: Construction Equipment

P-1 Line Item Number / Title:
9120M05500 / Const Equip ESP

ID Code (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** N/A **Other Related Program Elements:** N/A

Line Item MDAP/MAIS Code: N/A

Exhibits Schedule					Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-5	M05500 / Const Equip ESP	P-5a	A		140 / 408.726	188 / 33.289	177 / 38.660	25 / 8.925	1 / 0.657	26 / 9.582
P-40	Total Gross/Weapon System Cost				140 / 408.726	188 / 33.289	177 / 38.660	25 / 8.925	1 / 0.657	26 / 9.582

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

Justification:
 FY 2021 Base procurement dollars in the amount of \$8.925 million procures the recapitalization and SLEP of approximately 25 D-7G Medium Dozers and engineering changes and all supporting program costs.
 FY 2021 OCO dollars in the amount of \$0.657 million procures the recapitalization and SLEP of one 613C Scraper and associated program support in support of Operation Freedom Sentinel.

Note: FY 2019 quantity of 188 is incorrect due to systematic error. The correct quantity of 186 in the P5 reflects actual systems procured. FY 2020 quantity of 177 is incorrect due to systematic errors. The correct quantity of 205 reflects true programmatic planning.

In accordance with Section 1815 of the FY 2008 National Defense Authorization Act (P.L. 110-181), this item is necessary for use by the Active and Reserve Components of the Armed Forces for homeland defense missions, domestic emergency responses, and providing military support to civil authorities.

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army											Date: February 2020										
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 50						P-1 Line Item Number / Title: 9120M05500 / Const Equip ESP						Item Number / Title [DODIC]: M05500 / Const Equip ESP									
ID Code (A=Service Ready, B=Not Service Ready) : A											MDAP/MAIS Code:										
Resource Summary				Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
Procurement Quantity (<i>Units in Each</i>)				140			188			177			25			1			26		
Gross/Weapon System Cost (<i>\$ in Millions</i>)				408.726			33.289			38.660			8.925			0.657			9.582		
Less PY Advance Procurement (<i>\$ in Millions</i>)				-			-			-			-			-			-		
Net Procurement (P-1) (<i>\$ in Millions</i>)				408.726			33.289			38.660			8.925			0.657			9.582		
Plus CY Advance Procurement (<i>\$ in Millions</i>)				-			-			-			-			-			-		
Total Obligation Authority (<i>\$ in Millions</i>)				408.726			33.289			38.660			8.925			0.657			9.582		
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>																					
Initial Spares (<i>\$ in Millions</i>)				-			-			-			-			-			-		
Gross/Weapon System Unit Cost (<i>\$ in Thousands</i>)				2,919.471			177.069			218.418			357.000			657.000			368.538		

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
Flyaway Cost																		
Recurring Cost																		
Engineering Changes	-	-	10.783	-	-	0.618	-	-	0.200	-	-	-	-	-	-	-	-	-
System Engineering/ Program Management	-	-	15.988	-	-	0.414	-	-	1.119	-	-	0.500	-	-	-	-	-	0.500
Data	-	-	17.150	-	-	0.430	-	-	0.773	-	-	0.100	-	-	-	-	-	0.100
Fielding	-	-	20.417	-	-	0.168	-	-	1.188	-	-	0.494	-	-	0.247	-	-	0.741
SLEP Additional Work Efforts (AWE)	-	-	-	-	-	5.481	-	-	5.108	-	-	1.331	-	-	-	-	-	1.331
Subtotal: Recurring Cost	-	-	64.338	-	-	7.111	-	-	8.388	-	-	2.425	-	-	0.247	-	-	2.672
Subtotal: Flyaway Cost	-	-	64.338	-	-	7.111	-	-	8.388	-	-	2.425	-	-	0.247	-	-	2.672
Hardware Cost																		
Recurring Cost																		
High Speed Compactor ^(†)	175.212	33	5.782	178.784	37	6.615	178.800	45	8.046	-	-	-	-	-	-	-	-	-
Vibratory Roller I/III ^(†)	121.050	20	2.421	113.635	52	5.909	113.667	9	1.023	-	-	-	-	-	-	-	-	-
Vibratory Roller II ^(†)	142.160	131	18.623	140.337	83	11.648	140.340	147	20.630	-	-	-	-	-	-	-	-	-
Dual Steel Wheel Roller ^(†)	140.500	14	1.967	143.286	14	2.006	143.250	4	0.573	-	-	-	-	-	-	-	-	-
DEUCE	315.207	193	60.835	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Grader	240.000	442	106.080	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Scraper ^(†)	300.000	454	136.200	-	-	-	-	-	-	-	-	-	410.000	1	0.410	410.000	1	0.410

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 50		P-1 Line Item Number / Title: 9120M05500 / Const Equip ESP
ID Code (A=Service Ready, B=Not Service Ready) : A		MDAP/MAIS Code:
Item Number / Title [DODIC]: M05500 / Const Equip ESP		

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
D-7G Medium Dozer (Tractor, Full-Tracked) ^(t)	260.000	48	12.480	-	-	-	-	-	-	260.000	25	6.500	-	-	-	260.000	25	6.500
<i>Subtotal: Recurring Cost</i>	-	-	344.388	-	-	26.178	-	-	30.272	-	-	6.500	-	-	0.410	-	-	6.910
<i>Subtotal: Hardware Cost</i>	-	-	344.388	-	-	26.178	-	-	30.272	-	-	6.500	-	-	0.410	-	-	6.910
Gross/Weapon System Cost	2,919.471	140	408.726	177.069	188	33.289	218.418	177	38.660	357.000	25	8.925	657.000	1	0.657	368.538	26	9.582

Remarks:

The unit cost of each inducted SLEP asset is variable and dependent on the condition of the base vehicle.

The increase in cost for SLEP Additional Work Efforts (AWE) is due to breaking out the cost for AWE on the P-form as opposed to the cost listed within the overall cost for each system.

Items are COTS, no P-21 required.

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Army	Quantity	27	47	7	1	8
	Total Obligation Authority	5.550	10.913	3.385	0.657	4.042
ANG	Quantity	102	75	9	-	9
	Total Obligation Authority	17.846	16.008	2.770	-	2.770
AR	Quantity	59	55	9	-	9
	Total Obligation Authority	9.893	11.739	2.770	-	2.770
Total: Secondary Distribution	Quantity	188	177	25	1	26
	Total Obligation Authority	33.289	38.660	8.925	0.657	9.582

(t) indicates the presence of a P-5a

UNCLASSIFIED

Exhibit P-5a, Procurement History and Planning: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 50	P-1 Line Item Number / Title: 9120M05500 / Const Equip ESP	Item Number / Title [DODIC]: M05500 / Const Equip ESP
----------------------------------------------------------------------------------	----------------------------------------------------------------------	-----------------------------------------------------------------

Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty <i>(Each)</i>	Unit Cost <i>(\$ K)</i>	Specs Avail Now?	Date Revision Available	RFP Issue Date
High Speed Compactor		2019	Caterpillar / Peoria, IL	Option / FFP	Warren, MI	Feb 2019	Aug 2019	37	178.784	N		
High Speed Compactor		2020	Caterpillar / Peoria, IL	Option / FFP	Warren, MI	Feb 2020	Aug 2020	45	178.800	N		
Vibratory Roller I/III		2019	Caterpillar / Peoria, IL	Option / FFP	Warren, MI	Feb 2019	Aug 2019	52	113.635	N		
Vibratory Roller I/III		2020	Caterpillar / Peoria, IL	Option / FFP	Warren, MI	Feb 2020	Aug 2020	9	113.667	N		
Vibratory Roller II		2019	Caterpillar / Peoria, IL	Option / FFP	Warren, MI	Feb 2019	Aug 2019	83	140.337	N		
Vibratory Roller II		2020	Caterpillar / Peoria, IL	Option / FFP	Warren, MI	Feb 2020	Aug 2020	147	140.340	N		
Dual Steel Wheel Roller		2019	Caterpillar / Peoria, IL	Option / FFP	Warren, MI	Jan 2019	Jan 2020	14	143.286	N		
Dual Steel Wheel Roller		2020	Caterpillar / Peoria, IL	/	Warren, MI	Nov 2019	Nov 2020	4	143.250	N		
Scraper	✓	2021	TBD / TBD	C / FFP	TBD	Feb 2021	Aug 2021	1	410.000	N		
D-7G Medium Dozer (Tractor, Full- Tracked)		2021	TBD / TBD	C / FFP	TBD	Jan 2021	Jan 2022	25	260.000	N		

Remarks:
This is a Commercial-Off-the-Shelf (COTS) Program.

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity:
2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 50:
Construction Equipment **P-1 Line Item Number / Title:**
9462ML5350 / Items Less Than \$5.0M (Const Equip)

ID Code (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** N/A **Other Related Program Elements:** N/A

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	266	232	30	-	-	-	-	-	-	-	-	528
Gross/Weapon System Cost (<i>\$ in Millions</i>)	144.708	6.103	4.731	-	-	-	-	-	-	-	-	155.542
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	144.708	6.103	4.731	-	-	-	-	-	-	-	-	155.542
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	144.708	6.103	4.731	-	-	-	-	-	-	-	-	155.542

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Thousands</i>)	544.015	26.306	157.700	-	-	-	-	-	-	-	-	294.587

Description:

The Construction Equipment (CE) Items less than \$5.0M line supports various Programs of Record (POR) as well as ancillary equipment and attachments, where the acquisition cost for each line item is below \$5.0 million. These programs provide the enhanced capabilities to the current force enabling them to execute their expeditionary mission to include:

- Route Remediation is mission that is supported by multiple programs that provides combat engineer units the capability to quickly repair damaged or lay new routes. Route Remediation PORs consists of:
 - Portable Asphalt Patcher (PAP) - The PAP enables the Engineer Asphalt Team with the capability necessary for rapid route remediation and preventing IED emplacement in potholes. A highly mobile, self-contained, spray-injection asphalt patcher built on an M1077 flat rack, the PAP mixes aggregate with asphalt emulsion and dispenses the mixture into a repair area for a patch that is traffic ready within 20 minutes. Army Acquisition Objective (AAO) is 7 systems.
 - Self-Propelled Concrete Saw (SPCS) - The SPCS enables Engineer Support Companies (Asphalt Teams, Concrete Sections, and Engineer Utilities Detachments) with the capability necessary to conduct rapid route remediation and rapid runway repair by quickly and effectively cutting out a damaged area of road or runway during the repair process and paving construction projects. The SPCS includes a heavy duty water supply hose with couplings capable of interfacing and operating with the Engineer Mission Module-Water Distributor (EMM-WD) to allow for cooling of the saw blade during use. AAO is 65 systems.
 - Portable Concrete Mixer (PCM) is a 2 cubic yard capacity trailer mounted independently powered volumetric concrete mixer that supports the rapid route repair mission. AAO is 268 systems.
 - Machine Powered Mowing System (MPMS) - An attachment mounted on the Heavy Type II Loader, the MPMS enables Horizontal Construction Platoons with the capability necessary to: (1) improve humanitarian conditions through the use of the ditching attachment to create improved water drainage paths and (2) clear routes and conduct improvised explosive device detection missions through the removal of ground cover, foliage, grass, weeds, and underbrush to prevent adversaries from placing improvised explosive devices near roadsides. AAO is 66 systems.
- Water Well Drill System (WWDS) - The WWDS enables Well Drilling Teams within Army National Guard units with the capability necessary to drill and cast two complete water well holes up to 2000ft. deep. The system enables the construction of new wells and repair of existing wells providing improved hygiene and sanitation for camps, facilities and local populations and providing the ability before, during and after combat operations to effect institutional and infrastructural improvements to strengthen selected urban subsystems identified as essential to the continued functioning of the urban system. WWDS is capable of installing casings, screens, pump and developing wells to provide water at the well head. WWDS can transport up to 2500 gallons of potable water and is capable of sustaining 24-hour operations. AAO is 8 systems.
- Family of Utility Service Equipment (FUSE) - The FUSE is a commercial-off-the-shelf (COTS) system that provides Prime Power units the ability to generate and distribute prime electrical power in support of the warfighter support operations. System consists of four parts: 1) Aerial Lift Truck 2) Derrick Digger Truck 3) Pole/Reel Trailer 4) Cable Trailer. AAO is 25 systems.

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2021 Army							Date: February 2020		
Appropriation / Budget Activity / Budget Sub Activity: 2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 50: Construction Equipment					P-1 Line Item Number / Title: 9462ML5350 / Items Less Than \$5.0M (Const Equip)				
ID Code (A=Service Ready, B=Not Service Ready): A			Program Elements for Code B Items: N/A			Other Related Program Elements: N/A			
Line Item MDAP/MAIS Code: N/A									

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
Army	Quantity	31	2	-	-	-	-	-	-	-
	Total Obligation Authority	1.373	1.310	-	-	-	-	-	-	-
ANG	Quantity	200	12	-	-	-	-	-	-	-
	Total Obligation Authority	4.630	1.443	-	-	-	-	-	-	-
AR	Quantity	1	16	-	-	-	-	-	-	-
	Total Obligation Authority	0.100	1.978	-	-	-	-	-	-	-
Total:	Quantity	232	30	-	-	-	-	-	-	-
Secondary Distribution	Total Obligation Authority	6.103	4.731	-	-	-	-	-	-	-

Justification:
This program has no FY21 Base funding.

Note: FY 2019 quantity of 232 is incorrect due to systematic error. The correct quantity of 31 in the P5 reflects actual systems procured. FY 2020 quantity of 30 is incorrect due to systematic errors. The correct quantity of 59 reflects true programmatic planning.

In accordance with Section 1815 of the FY 2008 National Defense Authorization Act (P.L. 110-181), this item is necessary for use by the Active and Reserve Components of the Armed Forces for homeland defense missions, domestic emergency responses, and providing military support to civil authorities.

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 55: Rail Float Containerization Equipment	P-1 Line Item Number / Title: 3569M11101 / Army Watercraft Esp
----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	--------------------------------------------------------------------------

ID Code (A=Service Ready, B=Not Service Ready):	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
--------------------------------------------------------	-----------------------------------------------	--------------------------------------------

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	4	1	2	3	-	3	7	8	8	4	-	37
Gross/Weapon System Cost (<i>\$ in Millions</i>)	85.464	8.508	35.194	40.910	-	40.910	36.608	33.922	30.510	30.511	-	301.627
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	85.464	8.508	35.194	40.910	-	40.910	36.608	33.922	30.510	30.511	-	301.627
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	85.464	8.508	35.194	40.910	-	40.910	36.608	33.922	30.510	30.511	-	301.627

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Thousands</i>)	21,366.000	8,508.000	17,597.000	13,636.667	-	13,636.667	5,229.714	4,240.250	3,813.750	7,627.750	-	8,152.081

Description:

The Army Watercraft Extended Service Program (ESP) budget line funds the Service Life Extension Programs (SLEP) and Modernized Integrated Bridge System (MIBS) efforts across the Army Watercraft Systems portfolio. SLEP and MIBS efforts will significantly improve fleet age, operational readiness, configuration control and overall fleet management issues that challenge the fleet today.

Army Watercraft Systems (AWS) support Dynamic Force Repositioning (DFR) and provides the Combatant and Multi-Domain Task Force Commander with organic waterborne lift capability that can deliver today's Army maneuver platforms and equipment, and supply bulk fuel and water across the full spectrum of operations with increased speed and lower draft; and mitigates anti-access/area denial (A2/AD) threat by providing access to shallow coastal waters, rivers, in narrow inland waterways in support of dispersed force elements in austere environments and where mature ports or road networks are unavailable. The SLEP and MIBS are critical modernization efforts in support of the Army's Watercraft Transformation Strategy (AWTS) and fulfillment of the AWS Title 10 mission.

In general, all Army Watercraft funding supports initiatives to enhance the seaworthiness, safety, and survivability while increasing the lethality, tactical mobility, and operational capability of the Army Mariner to preserve the Combatant Commanders requirement of "freedom of seas" access in all areas of the world particularly the littorals, to support maneuver operations in all Areas of Responsibility.

The Landing Craft Utility 2000 (LCU 2000) SLEP will serve to extend the current Economic Useful Life (EUL) of the class of vessels until a suitable replacement vessel is approved and procured. The LCU-2000 provides intra-theater movement of combat vehicles, equipment, and sustainment cargo, to include containerized, break-bulk, and roll-on roll-off (RO/RO) cargo, to improved and/or degraded ports, bare and austere beaches, and inland water terminals. The vessel is ideally suited for the discharge and back load of sea lift; the shallow draft, bow ramp, and associated systems providing for beaching and extraction. The vessel supports Joint Logistics Over the Shore (JLOTS), seaport opening, and delivers combat configured elements or sustainment cargo during all phases of the campaign. The LCU-2000 was fielded from 1990-1993 and was designed and built specifically to the objective of a 25 year EUL. While new capability is not being added, some capabilities will be improved and modernized through the application of Engineering Change Proposals (ECPs) and modifications, such as engine repower, power generation, force protection, habitability and critical system configuration reset. The LCU-2000 Technical Manuals and provisioning data effort covers development, re-write and publishing of the critical repower requirement along with all other subsystems affected by SLEP.

The Modular Causeway System (MCS) SLEP will serve to extend the current EUL for the critical Modular Warping Tug (MWT) and Causeway Ferry (CF) systems until a suitable replacement vessel is approved and procured. The MCS is a critical force enabler for the Combatant Command. It allows them to improve throughput when executing JLOTS and other littoral or coastal movements of equipment, and supplies. Specifically, the MWT is used to assist in the assembly, movement, and positioning of MCS and the CF is used to transfer containers from containerhips directly to the beach. While new capability is not being added, some capabilities will be improved and modernized through the application of Engineering Change Proposals (ECPs) & modifications, such as engine repower, winch repower, electrical system upgrades

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity:
 2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 55: Rail
 Float Containerization Equipment

P-1 Line Item Number / Title:
 3569M11101 / Army Watercraft Esp

ID Code (A=Service Ready, B=Not Service Ready): **Program Elements for Code B Items:** N/A **Other Related Program Elements:** N/A

Line Item MDAP/MAIS Code: N/A

and an overall configuration reset. The MWT/CF Technical Manuals and provisioning data effort covers development, re-write and publishing of the critical subsystems affected by SLEP. The Modular Warping Tug (MWT), Causeway Ferry (CF) SLEP production will leverage the Technical Data Package (TDP) developed under the RDTE 526 funding line.

The Modernized Integrated Bridge System (MIBS) and pilot house configuration efforts will serve to address the communication capability gaps that exist on today's Logistics Support Vessel (LSV) and LCU-2000 class of vessels. MIBS will provide a commonly configured LSV and LCU 2000 communications suite, which will enhance the ability for the Multi-Domain Task Force or Combatant Commands to effectively communicate, ensure the safety of navigation, and maintain interoperability in the full joint spectrum of operations. Mission command and commercial navigation technology is continuously evolving to counter today's rapidly growing cyber security threat. In order to maintain the safety of vessel and crew operations, these technologies must be modernized and refreshed every three to five years. While new capability is not being added, MIBS will update the existing vessel communications capabilities (both commercial and mission command) will be improved and modernized through the application of Engineering Change Proposals (ECPs) and modifications, technology refreshes and critical system configuration reset. The MIBS Technical Manuals and provisioning data effort covers development, re-write and publishing of the critical systems affected by SLEP.

Comments: In accordance with section 1815 of the FY 2008 National Defense Authorization Act (P.L. 110-181), this item is necessary for use by the active and reserve components of the Armed Forces for homeland defense missions, domestic emergency responses, and providing military support to civil authorities.

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
Army	Quantity	1	2	3	-	3	7	8	8	4
	Total Obligation Authority	8.508	35.194	40.910	-	40.910	36.608	33.922	30.510	30.511
Total: Secondary Distribution	Quantity	1	2	3	-	3	7	8	8	4
	Total Obligation Authority	8.508	35.194	40.910	-	40.910	36.608	33.922	30.510	30.511

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity:
 2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 55: Rail Float Containerization Equipment

P-1 Line Item Number / Title:
 3569M11101 / Army Watercraft Esp

ID Code (A=Service Ready, B=Not Service Ready): **Program Elements for Code B Items:** N/A **Other Related Program Elements:** N/A

Line Item MDAP/MAIS Code: N/A

Exhibits Schedule					Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-5	M11101 / Army Watercraft Esp	P-5a, P-21			4 / 85.464	1 / 8.508	2 / 35.194	3 / 40.910	- / -	3 / 40.910
P-40	Total Gross/Weapon System Cost				4 / 85.464	1 / 8.508	2 / 35.194	3 / 40.910	- / -	3 / 40.910

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

Justification:
 FY 2021 Base procurement dollars in the amount of \$40.910 million supports production of 2 Landing Craft Utility 2000 (LCU-2000) SLEP vessels, application of Modernized Integrated Bridge Systems (MIBS) effort on the LCU-2000 and LSV, production of 1 Modular Warping Tug (MWT) SLEP, procurement of MWT special tools, government personnel and test support, prime contractor personnel and test support, data development (technical data, technical manuals, and provisioning), and technical manual revisions for all three efforts.

The Army Watercraft Extended Service Program (ESP) budget line funds the Service Life Extension Programs (SLEP) and Modernized Integrated Bridge System (MIBS) efforts across the Army Watercraft Systems portfolio. SLEP and MIBS efforts will significantly improve fleet age, operational readiness, configuration control and overall fleet management issues that challenge the fleet today.

Army Watercraft Systems (AWS) support Dynamic Force Repositioning (DFR) and provides the Combatant and Multi-Domain Task Force Commander with organic waterborne lift capability that can deliver today's Army maneuver platforms and equipment, and supply bulk fuel and water across the full spectrum of operations with increased speed and lower draft; and mitigates anti-access/area denial (A2/AD) threat by providing access to shallow coastal waters, rivers, in narrow inland waterways in support of dispersed force elements in austere environments and where mature ports or road networks are unavailable. The SLEP and MIBS are critical modernization efforts in support of the Army's Watercraft Transformation Strategy (AWTS) and fulfillment of the AWS Title 10 mission.

In accordance with Section 1815 of the FY 2008 National Defense Authorization Act (P.L. 110-181), this item is necessary for use by the active and reserve components of the Armed Forces for homeland defense missions, domestic emergency responses, and providing military support to civil authorities.

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 55	P-1 Line Item Number / Title: 3569M11101 / Army Watercraft Esp	Item Number / Title [DODIC]: M11101 / Army Watercraft Esp

ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:
---------------------------------------------------------	------------------------

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Procurement Quantity (Units in Each)	4	1	2	3	-	3
Gross/Weapon System Cost (\$ in Millions)	85.464	8.508	35.194	40.910	-	40.910
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	85.464	8.508	35.194	40.910	-	40.910
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	85.464	8.508	35.194	40.910	-	40.910

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (\$ in Millions)	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Thousands)	21,366.000	8,508.000	17,597.000	13,636.667	-	13,636.667

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
Flyaway Cost																		
Recurring Cost																		
SLEP Vessels (LCU-2000) ^(f)	22,175.000	3	66.525	-	-	-	7,875.000	2	15.750	8,482.000	2	16.964	-	-	-	8,482.000	2	16.964
MIBS Vessels (LCU-2000)	-	-	-	-	-	-	-	-	1.120	-	-	15.832	-	-	-	-	-	15.832
SLEP Vessels (MCS) ^(f)	-	-	-	-	-	-	-	-	-	2,961.000	1	2.961	-	-	-	2,961.000	1	2.961
Program Management/Matrix Support	-	-	10.317	-	-	2.221	-	-	2.176	-	-	2.694	-	-	-	-	-	2.694
LCU Technical Manuals and Spares	-	-	7.017	-	-	1.358	-	-	1.100	-	-	1.638	-	-	-	-	-	1.638
New Equipment Training (NET)	-	-	1.605	-	-	0.549	-	-	0.761	-	-	0.821	-	-	-	-	-	0.821
Subtotal: Recurring Cost	-	-	85.464	-	-	4.128	-	-	20.907	-	-	40.910	-	-	-	-	-	40.910
Non Recurring Cost																		
MCS Logistics	-	-	-	-	-	-	-	-	7.020	-	-	-	-	-	-	-	-	-
MIBS Logistics (LCU-2000)	-	-	-	-	-	-	-	-	4.987	-	-	-	-	-	-	-	-	-
MIBS Engineering (LCU-2000)	-	-	-	-	-	4.380	-	-	-	-	-	-	-	-	-	-	-	-
MIBS Engineering (LSV)	-	-	-	-	-	-	-	-	2.280	-	-	-	-	-	-	-	-	-

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 55		P-1 Line Item Number / Title: 3569M11101 / Army Watercraft Esp
ID Code (A=Service Ready, B=Not Service Ready) :		MDAP/MAIS Code:

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
<i>Subtotal: Non Recurring Cost</i>	-	-	-	-	-	4.380	-	-	14.287	-	-	-	-	-	-	-	-	-
<i>Subtotal: Flyaway Cost</i>	-	-	85.464	-	-	8.508	-	-	35.194	-	-	40.910	-	-	-	-	-	40.910
Gross/Weapon System Cost	21,366.000	4	85.464	8,508.000	1	8.508	17,597.000	2	35.194	13,636.667	3	40.910	-	-	-	13,636.667	3	40.910

Remarks:

FY19 quantity was reduced down to zero due to funding cuts.

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Army	Quantity	1	2	3	-	3
	Total Obligation Authority	8.508	35.194	40.910	-	40.910
Total: Secondary Distribution	Quantity	1	2	3	-	3
	Total Obligation Authority	8.508	35.194	40.910	-	40.910

(t) indicates the presence of a P-5a

UNCLASSIFIED

Exhibit P-5a, Procurement History and Planning: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 55	P-1 Line Item Number / Title: 3569M11101 / Army Watercraft Esp	Item Number / Title [DODIC]: M11101 / Army Watercraft Esp
----------------------------------------------------------------------------------	--------------------------------------------------------------------------	---------------------------------------------------------------------

Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty <i>(Each)</i>	Unit Cost <i>(\$ K)</i>	Specs Avail Now?	Date Revision Available	RFP Issue Date
SLEP Vessels (LCU-2000) ^(†)		2021	TBD 2 2021 / TBD	C / FFP	Warren, MI	Jan 2021	Jun 2021	2	8,482.000	N		
SLEP Vessels (MCS)		2021	TBD 2 2021 / TBD	C / FFP	Warren, MI	Mar 2021	Aug 2021	1	2,961.000	N		

^(†) indicates the presence of a P-21

Remarks:

FY19 funds are applied to LCU MIBS Engineering, Program Management Support/Matrix Support, LCU SLEP Phase I, New Equipment Training (NET), and LCU SLEP Technical Manuals. FY20 funds are applied to Phase II of The Landing Craft Utility 2000 (LCU-2000) Service Life Extension Program (SLEP) which begins 2QFY20. The LCU-2000 SLEP program is conducted in two phases with Phase I consist of 2 Low Rate Initial Production (LRIP) vessels, and 2 option vessels. LCU-2000 SLEP Phase I which began in FY16 l results in the application of several Engineering Change Proposals (ECP), completion of the LCU 2000 SLEP Technical Data Package (TDP), completion of New Equipment Training (NET), completion of LCU 2000 SLEP test and evaluation, and development of an authenticated Technical Manual (TM). SLEP activities will modernize the Main Propulsion, Bow Thruster, and Ships Service and Emergency Diesel Generator engines; upgrade Force Protection Equipment (new gun mounts and ballistic protection), and upgrade various engineering systems (e.g. Air Conditioning System). The LCU-2000 Phase II will consist of Full Rate Production (FRP) of LCU-2000 vessels starting in FY20.

UNCLASSIFIED

Exhibit P-21, Production Schedule: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 55 **P-1 Line Item Number / Title:** 3569M11101 / Army Watercraft Esp **Item Number / Title [DODIC]:** M11101 / Army Watercraft Esp

Cost Elements <i>(Units in Each)</i>						Fiscal Year 2021												Fiscal Year 2022												BALANCE	
O C C #	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2020	BAL DUE AS OF 1 OCT	Calendar Year 2021												Calendar Year 2022												
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G		S E P
SLEP Vessels (LCU-2000)																															
Prior Years Deliveries: 3																															
1		2021	ARMY	2	0	2				A	-	-	-	-	-	1	-	1											0		
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	

UNCLASSIFIED

Exhibit P-21, Production Schedule: PB 2021 Army	Date: February 2020
--------------------------------------------------------	----------------------------

Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 55	P-1 Line Item Number / Title: 3569M11101 / Army Watercraft Esp	Item Number / Title [DODIC]: M11101 / Army Watercraft Esp
----------------------------------------------------------------------------------	--------------------------------------------------------------------------	---------------------------------------------------------------------

MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Month)			Procurement Leadtime (Months)							
		MSR For 2021	1-8-5 For 2021	MAX For 2021	Initial				Reorder			
					ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1	ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1
1	TBD 2 2021 - TBD	1	1	1	0	4	5	9	0	6	5	11

Remarks:
Service Life Extension Program (SLEP) modifications are completed at commercial shipyards.

P-21 Schedule only includes SLEP Vessel (LCU-2000), the MIBS (LCU 2000) effort does not reach the threshold for reporting within this form.

"A" in the Delivery Schedule indicates the Contract Award Date.

Note: Due to space limitations, quantities in the Exhibit P-21 delivery calendar are truncated and rounded based on the maximum quantity in the calendar as follows. If the maximum quantity is less than or equal to than 9,999, all quantities are shown as each. If the maximum quantity is between 10,000 and 999,999 all quantities are shown in thousands. If the maximum quantity is between 1,000,000 and 999,999,999 all quantities are shown in millions (rounded to the nearest thousand). If the maximum quantity is equal or greater than 1,000,000,000 all quantities are shown in billions (rounded to the nearest million).

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity:
2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 55: Rail
Float Containerization Equipment

P-1 Line Item Number / Title:
8211R01001 / Maneuver Support Vessel (MSV)

ID Code (A=Service Ready, B=Not Service Ready): **Program Elements for Code B Items:** N/A **Other Related Program Elements:** 0604804A

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	2	-	2	2	4	5	-	-	13
Gross/Weapon System Cost (<i>\$ in Millions</i>)	-	-	14.185	76.576	-	76.576	72.938	102.524	148.006	128.106	-	542.335
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	-	-	14.185	76.576	-	76.576	72.938	102.524	148.006	128.106	-	542.335
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	-	-	14.185	76.576	-	76.576	72.938	102.524	148.006	128.106	-	542.335

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Thousands</i>)	-	-	-	38,288.000	-	38,288.000	36,469.000	25,631.000	29,601.200	-	-	41,718.077

Description:

The Army's new Maneuver Support Vessels (MSVs) support Dynamic Force Repositioning (DFR) and provides the Combatant and Multi-Domain Task Force Commander with organic waterborne lift capability that can deliver today's Army maneuver platforms and equipment, and supply bulk fuel and water across the full spectrum of operations with increased speed and lower draft; and mitigates anti-access/area denial (A2/AD) threat by providing access to shallow coastal waters, rivers, in narrow inland waterways in support of dispersed force elements in austere environments and where mature ports or road networks are unavailable. The MSVs are critical modernization efforts in support of the Army's Watercraft Transformation Strategy (AWTS) and Army Force Package 2.0.

The Maneuver Support Vessel (Light) - MSV(L) is the first modernization program which will displace the Army's aging Landing Craft Mechanized-8 (LCM-8) class of vessels. The LCM-8 does not have the speed, functional draft (shallow water capability), and maneuver capability to move today's Army Maneuver Platforms.

The MSV-L provides upgraded capabilities such as higher operational speed, reduced draft and increased payload to conduct maneuver support missions including delivery of the Army's maneuver platforms such as a combat configured Abrams, Stryker and Bradley Fighting Vehicles along with critical sustainment missions including delivery of food, water, fuel, and ammunition.

The MSV(L) program is currently in the Engineering and Manufacturing Development (EMD) phase and in the process of building the single full scale prototype. The prototype will undergo contractor and government testing, which will inform the updated Joint Capabilities Integration Development System (JCIDS) requirements documentation at MS C. Following successful prototype testing, JCIDS requirements documentation approval and MS C approval, the Milestone Decision Authority (MDA) will authorize the start of the Production and Deployment (P&D) phase. The program is on schedule to achieve Milestone C in FY21, followed by Low Rate Initial Production (LRIP) and Full Rate Production (FRP).

In preparation for future operational testing, FY20 OPA funds will upgrade the Maritime Integrated Training Systems (MITS), which will take three years from receipt of funds to completion of the upgrade. In addition, a portion of the remaining FY20 and FY21 funds will be used to support milestone documentation in support of the MS C decision in FY21. Once MS C is approved, the MDA will authorize the start of LRIP production in FY21.

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
Army	Quantity	-	-	2	-	2	2	4	5	-
	Total Obligation Authority	-	14.185	76.576	-	76.576	72.938	102.524	148.006	128.106

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 55: Rail Float Containerization Equipment	P-1 Line Item Number / Title: 8211R01001 / Maneuver Support Vessel (MSV)
-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	------------------------------------------------------------------------------------

ID Code (A=Service Ready, B=Not Service Ready):	Program Elements for Code B Items: N/A	Other Related Program Elements: 0604804A
--------------------------------------------------------	-----------------------------------------------	-------------------------------------------------

Line Item MDAP/MAIS Code: N/A

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
Total:	Quantity	-	-	2	-	2	2	4	5	-
Secondary Distribution	Total Obligation Authority	-	14.185	76.576	-	76.576	72.938	102.524	148.006	128.106

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 55: Rail Float Containerization Equipment **P-1 Line Item Number / Title:** 8211R01001 / Maneuver Support Vessel (MSV)

ID Code (A=Service Ready, B=Not Service Ready): **Program Elements for Code B Items:** N/A **Other Related Program Elements:** 0604804A

Line Item MDAP/MAIS Code: N/A

Exhibits Schedule					Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-5	R03050 / Maneuver Support Vessel (Light) (MSV-L)	P-5a, P-21			- / -	- / -	- / 14.185	2 / 76.576	- / -	2 / 76.576
P-40	Total Gross/Weapon System Cost				- / -	- / -	- / 14.185	2 / 76.576	- / -	2 / 76.576

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

Justification:
 FY2021 Base procurement dollars in the amount of \$76.657 million will fund the support for milestone C documentation, government personnel and test support, prime contractor personnel and test support, data development (technical data, technical manuals, and provisioning) and procurement of two (2) LRIP Vessels. The two LRIP vessels are required for Production Verification Testing (PVT), Reliability, Availability and Maintainability (RAM) testing, and Initial Operational Test and Evaluation (IOT&E).

 The Maneuver Support Vessel (Light) - MSV(L) is the first modernization program which will displace the Army's aging Landing Craft Mechanized-8 (LCM-8) class of vessels. The LCM-8 does not have the speed, functional draft (shallow water capability), and maneuver capability to move today's Army Maneuver Platforms.

 The MSV-L provides upgraded capabilities such as higher operational speed, reduced draft and increased payload to conduct maneuver support missions including delivery of the Army's maneuver platforms such as a combat configured Abrams, Stryker and Bradley Fighting Vehicles along with critical sustainment missions including delivery of food, water, fuel, and ammunition.

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 55		P-1 Line Item Number / Title: 8211R01001 / Maneuver Support Vessel (MSV)
		Item Number / Title [DODIC]: R03050 / Maneuver Support Vessel (Light) (MSV-L)

ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:
---------------------------------------------------------	------------------------

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Procurement Quantity (Units in Each)	-	-	-	2	-	2
Gross/Weapon System Cost (\$ in Millions)	-	-	14.185	76.576	-	76.576
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	-	-	14.185	76.576	-	76.576
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	-	-	14.185	76.576	-	76.576

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (\$ in Millions)	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Thousands)	-	-	-	38,288.000	-	38,288.000

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
Flyaway Cost																		
Recurring Cost																		
Recurring Production - Vessels ^(†)	-	-	-	-	-	-	-	-	-	21,020.000	2	42.040	-	-	-	21,020.000	2	42.040
Technical Publications	-	-	-	-	-	-	-	-	-	-	-	15.597	-	-	-	-	-	15.597
Program Management: Contractor / Matrix	-	-	-	-	-	-	-	-	-	-	-	13.730	-	-	-	-	-	13.730
First Destination Transportation	-	-	-	-	-	-	-	-	-	-	-	1.920	-	-	-	-	-	1.920
Subtotal: Recurring Cost	-	-	-	-	-	-	-	-	-	-	-	73.287	-	-	-	-	-	73.287
Non Recurring Cost																		
Test and Evaluation	-	-	-	-	-	-	-	-	-	-	-	1.419	-	-	-	-	-	1.419
Subtotal: Non Recurring Cost	-	-	-	-	-	-	-	-	-	-	-	1.419	-	-	-	-	-	1.419
Subtotal: Flyaway Cost	-	-	-	-	-	-	-	-	-	-	-	74.706	-	-	-	-	-	74.706
Support - Training Cost																		
Equipment	-	-	-	-	-	-	-	-	14.185	-	-	1.870	-	-	-	-	-	1.870
Subtotal: Support - Training Cost	-	-	-	-	-	-	-	-	14.185	-	-	1.870	-	-	-	-	-	1.870
Gross/Weapon System Cost	-	-	-	-	-	-	-	-	14.185	38,288.000	2	76.576	-	-	-	38,288.000	2	76.576

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 55	P-1 Line Item Number / Title: 8211R01001 / Maneuver Support Vessel (MSV)	Item Number / Title [DODIC]: R03050 / Maneuver Support Vessel (Light) (MSV-L)

ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:
---------------------------------------------------------	------------------------

Remarks:
FY2021 Base procurement dollars in the amount of \$76.657 million supports the LRIP Vessels 1 and 2. These two vessels are needed to support Production Verification Testing (PVT), Reliability, Availability and Maintainability (RAM) testing, and Initial Operation Test and Evaluation (IOT&E).

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Army	Quantity	-	-	2	-	2
	Total Obligation Authority	-	14.185	76.576	-	76.576
Total:	Quantity	-	-	2	-	2
Secondary Distribution	Total Obligation Authority	-	14.185	76.576	-	76.576

(t) indicates the presence of a P-5a

UNCLASSIFIED

Exhibit P-5a, Procurement History and Planning: PB 2021 Army							Date: February 2020					
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 55			P-1 Line Item Number / Title: 8211R01001 / Maneuver Support Vessel (MSV)				Item Number / Title [DODIC]: R03050 / Maneuver Support Vessel (Light) (MSV-L)					
Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty (Each)	Unit Cost (\$ K)	Specs Avail Now?	Date Revision Available	RFP Issue Date
Recurring Production - Vessels ^(†)		2021	Vigor Works LLC / Vancouver, WA	C / FFP	Warren, MI	Apr 2021	Aug 2023	2	21,020.000	N		

^(†) indicates the presence of a P-21

UNCLASSIFIED

Exhibit P-21, Production Schedule: PB 2021 Army												Date: February 2020											
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 55						P-1 Line Item Number / Title: 8211R01001 / Maneuver Support Vessel (MSV)						Item Number / Title [DODIC]: R03050 / Maneuver Support Vessel (Light) (MSV-L)											

Cost Elements <i>(Units in Each)</i>						Fiscal Year 2021												Fiscal Year 2022												BALANCE	
O C C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2020	BAL DUE AS OF 1 OCT	Calendar Year 2021												Calendar Year 2022												
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G		S E P

Recurring Production - Vessels																													
1	2021	ARMY		2	0	2																							2

UNCLASSIFIED

Exhibit P-21, Production Schedule: PB 2021 Army															Date: February 2020														
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 55										P-1 Line Item Number / Title: 8211R01001 / Maneuver Support Vessel (MSV)										Item Number / Title [DODIC]: R03050 / Maneuver Support Vessel (Light) (MSV-L)									

Cost Elements <i>(Units in Each)</i>						Fiscal Year 2023										Fiscal Year 2024										BALANCE	
O C C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2022	BAL DUE AS OF 1 OCT	Calendar Year 2023										Calendar Year 2024										
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R		M A Y

Recurring Production - Vessels																																					
1	2021	ARMY		2	0	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0

							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P						
--	--	--	--	--	--	--	-------------	-------------	-------------	-------------	-------------	-------------	-------------	-------------	-------------	-------------	-------------	-------------	-------------	-------------	-------------	-------------	-------------	-------------	-------------	-------------	-------------	-------------	-------------	-------------	--	--	--	--	--	--

UNCLASSIFIED

Exhibit P-21, Production Schedule: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 55		P-1 Line Item Number / Title: 8211R01001 / Maneuver Support Vessel (MSV)
		Item Number / Title [DODIC]: R03050 / Maneuver Support Vessel (Light) (MSV-L)

MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Year)			Procurement Leadtime (Months)							
		MSR For 2021	1-8-5 For 2021	MAX For 2021	Initial				Reorder			
					ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1	ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1
1	Vigor Works LLC - Vancouver, WA	2	2	10	0	7	28	35	0	7	29	36

"A" in the Delivery Schedule indicates the Contract Award Date.

Note: Due to space limitations, quantities in the Exhibit P-21 delivery calendar are truncated and rounded based on the maximum quantity in the calendar as follows. If the maximum quantity is less than or equal to than 9,999, all quantities are shown as each. If the maximum quantity is between 10,000 and 999,999 all quantities are shown in thousands. If the maximum quantity is between 1,000,000 and 999,999,999 all quantities are shown in millions (rounded to the nearest thousand). If the maximum quantity is equal or greater than 1,000,000,000 all quantities are shown in billions (rounded to the nearest million).

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity:
 2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 55: Rail **P-1 Line Item Number / Title:**
 9552ML5355 / Items Less Than \$5.0M (Float/Rail)
 Float Containerization Equipment

ID Code (A=Service Ready, B=Not Service Ready): **Program Elements for Code B Items:** N/A **Other Related Program Elements:** N/A

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	176.382	9.385	6.920	1.844	-	1.844	-	9.933	22.697	17.702	-	244.863
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	176.382	9.385	6.920	1.844	-	1.844	-	9.933	22.697	17.702	-	244.863
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	176.382	9.385	6.920	1.844	-	1.844	-	9.933	22.697	17.702	-	244.863

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

This budget line funds two separate programs. One program supports Float and the other program supports Rail.

Army Watercraft Systems (AWS) support Dynamic Force Repositioning (DFR) and provides the Combatant and Multi-Domain Task Force Commander with organic waterborne lift capability that can deliver today's Army maneuver platforms and equipment, and supply bulk fuel and water across the full spectrum of operations with increased speed and lower draft; and mitigates anti-access/area denial (A2/AD) threat by providing access to shallow coastal waters, rivers, in narrow inland waterways in support of dispersed force elements in austere environments and where mature ports or road networks are unavailable. The procurement of items less \$5.0M (material and/or hardware for modifications) is critical to the success of the Army's Watercraft Transformation Strategy (AWTS) and fulfillment of the AWS Title 10 mission.

In general, all Army Watercraft funding supports initiatives to enhance the seaworthiness, safety, and survivability while increasing the lethality, tactical mobility, and operational capability of the Army Mariner to preserve the Combatant Commanders requirement of "freedom of seas" access in all areas of the world particularly the littorals, to support maneuver operations in all Areas of Responsibility.

Army Watercraft Systems are categorized under Landing Craft, Towing and Terminal Operations, Ship-to-Shore Enablers and Watercraft Operations Support. Landing Craft consist of Logistic Support Vessels (LSV), Landing Craft Utility 2000 (LCU-2000), Landing Craft Mechanized 8 (LCM-8) MOD 1, and LCM-8 MOD 2 (Watercraft Operations Support). Towing and Terminal Operations consist of Large Tug 800 (LT-800), Small Tug 900 (ST-900), and Barge Derrick Crane 115-ton (BD-115). Ship-to-Shore Enablers consist of Modular Causeway Systems (MCS) [each MCS includes Roll-On/Roll-Off Discharge Facilities (RRDF), Modular Warping Tugs (MWT), Causeway Ferry (CF), Floating Causeway (FC)]. Security Patrol Boats intercept and divert vessels that have strayed outside the public channel into restricted waters.

For the Rail program, railroad equipment consists of locomotives, rolling stock, railway passenger cars, track maintenance equipment, etc., used to support Army ammunition plants, Army Materiel Command (AMC) depots, Installation Management Command (IMCOM), Forces Command (FORSCOM) and Training and Doctrine Command (TRADOC) installations in peacetime, training and mobilization missions. This Railway Equipment is procured for the replacement of locomotives and railway cars that have exceeded their economic useful life (65 years) and have become logistically unsupportable and costly to maintain. This equipment is in some cases already unserviceable and in other cases, either unsafe or not cleared for use under the Federal Railroad Administration (FRA). Funding was provided in FY19 to procure shop equipment and tools to assist in the Army's move of its railroad locomotive overhaul facility, the Defense Generator & Rail Center from Hill, AFB, UT to Anniston Army Depot, AL.

Locomotive procurement consists of commercial off-the-shelf GENSET switcher locomotives in direct support of the Army Rail Modernization Program. The program mandates systematic replacement of an aging fleet, that for the respective installations are becoming increasingly more costly to maintain. The GENSET Locomotives are industry proven, state of the art technology that will position the Army to meet current

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity:
 2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 55: Rail
 Float Containerization Equipment

P-1 Line Item Number / Title:
 9552ML5355 / Items Less Than \$5.0M (Float/Rail)

ID Code (A=Service Ready, B=Not Service Ready): **Program Elements for Code B Items:** N/A **Other Related Program Elements:** N/A

Line Item MDAP/MAIS Code: N/A

EPA air quality restrictions, and future fuel economy mandates. The procurement of railway cars is to meet TDA shortages at various Army installations as well as to replace aging assets that have exceeded their economic useful life.

Comments: In accordance with Section 1815 of the FY 2008 National Defense Authorization Act (P.L. 110-181), this item is necessary for use by the active and reserve components of the Armed Forces for homeland defense missions, domestic emergency responses, and providing military support to civil authorities.

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
Army	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	9.385	6.920	1.844	-	1.844	-	9.933	22.697	17.702
Total: Secondary Distribution	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	9.385	6.920	1.844	-	1.844	-	9.933	22.697	17.702

Justification:
 FY 2021 Base procurement dollars in the amount of \$1.844 million supports Army Watercraft Systems for material and/or hardware for modifications to maintain readiness, correct safety discrepancies, increase interoperability, maintain useful life, improve supportability, increase efficiency, meet new and changing statutory and regulatory requirements. FY 2021 Base procurement dollars also support Program Management Support which includes Program Management Matrix support and System Engineering oversight required to manage the program and provide contractor oversight. Matrix salaries, travel, personnel training and other government costs are included for retaining a professional acquisition workforce.

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 60: Generators	P-1 Line Item Number / Title: 0426MA9800 / Generators And Associated Equip
-------------------------------------------------------------------------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------

ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
---------------------------------------------------	----------------------------------------	-------------------------------------

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	5,889	3,907	1,752	1,801	5	1,806	1,391	1,325	1,495	1,461	Continuing	Continuing
Gross/Weapon System Cost (<i>\$ in Millions</i>)	391.637	136.906	115.912	53.433	0.106	53.539	61.474	61.630	65.220	54.980	Continuing	Continuing
Less PY Advance Procurement (<i>\$ in Millions</i>)	22.109	-	-	-	-	-	-	-	-	-	-	22.109
Net Procurement (P-1) (<i>\$ in Millions</i>)	369.528	136.906	115.912	53.433	0.106	53.539	61.474	61.630	65.220	54.980	Continuing	Continuing
Plus CY Advance Procurement (<i>\$ in Millions</i>)	22.109	-	-	-	-	-	-	-	-	-	-	22.109
Total Obligation Authority (<i>\$ in Millions</i>)	391.637	136.906	115.912	53.433	0.106	53.539	61.474	61.630	65.220	54.980	Continuing	Continuing

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Thousands</i>)	66.503	35.041	66.160	29.669	21.200	29.645	44.194	46.513	43.625	37.632	Continuing	Continuing

Description:

This line supports the Army Network Modernization Strategy Line of Effort #4, Command Post. This line provides the power generation and distribution that enables the Army to employ Command Posts across the operational spectrum, from early entry to major combat operations. Command Posts will use the microgrid to provide safe, reliable, and efficient power.

The MA9800 / Generators and Associated Equipment funding line supports the Mobile Electric Power Generating Sources (MEPGS) systems. The MEPGS systems consist of three generations: first generation is the Military Standard (MIL-STD) generators (to include the 2kW Military Tactical Generator (MTG)); the second generation is the Tactical Quiet Generator (TQG); the third generation is the Tactical Electric Power (TEP). The TEP program is to replace and modernize the first and second generation of DoD generator inventory (MIL STD, MTG and TQG, respectively) to meet the Army's requirements and establish the DoD standard for MEPGS. The TEP program is structured around the Small Tactical Electric Power (STEP) that covers 2-3kW stand-alone generator variants, Advanced Medium Mobile Power Sources (AMMPS) that covers 5-60kW stand-alone generator variants, Large Advanced Mobile Power Sources (LAMPS) that covers 100kW and 200kW stand-alone generator variants, multiple Power Units/Power Plants (PU/PPs) and Microgrid configurations.

The MA9800 / Generators and Associated Equipment funding line also supports Mobile Electric Power Distribution Systems (MEPDS), Mobile Electric Power Management Systems (MEPMS) and Mobile Electric Power Storage Systems (MEPSS) IAW DODI4120.11. The MEPDS includes current associated power distribution equipment (Power Distribution Illumination Systems Electrical (PDISE)).

These programs collectively provide a new, modern family of generators and distribution systems satisfying critical user requirements. The TEP CPD (rev 2, July 2014) will:

1. Reduce Acquisition Costs and Operations and Sustainment (O&S) costs by 15-20%.
2. Reduce weight by 25% across generator population, thereby reducing the Logistics footprint and improving deployability.
3. Significantly improve Reliability, Availability and Maintainability, to include Mean Time Between Failure improvements of 100-300%.
4. Eliminate gasoline from the generator inventory, thus complying with DoD guidance regarding single fuel on the battlefield (diesel/JP-8).
5. Reduce battlefield detectability by lowering noise levels by 50-75% across generator population.
6. Improve battlefield survivability by providing mission critical electric power to the digitized warfighting forces.

PDISE (Medium Power Distribution Systems) provides the linkage between the generators and the Network/C3I, Air & Missile Defense, Long Range Precision Fires, Command Post and Combat Support/ Combat Services Support Systems. MPDS includes the current PDISE family, M200, M100, M40, M60, M46 and the multiple input microgrid feeder box.

PDISE Army Acquisition Objective (AAO) = 25,637

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 60: Generators		P-1 Line Item Number / Title: 0426MA9800 / Generators And Associated Equip
ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
Line Item MDAP/MAIS Code: N/A		
<p>MEPDS, MEPMS and MEPSS will develop and field a joint distribution solution, the equipment developed will provide an interface for future On-board Vehicle Power System, Hybrid Power systems and alternative/renewable energy power systems.</p> <p>Power Distribution Illumination Systems Electrical (PDISE) provides the linkage between the generators and the Network/C3I, Air & Missile Defense, Long Range Precision Fires, Command Post and Combat Support/Combat Service Support systems. This program transmits electrical power efficiently from the point of generation to the point of need. PDISE components are man-portable and safe for all-weather operations. PDISE is a reliable, quick to assemble, modular designed power distribution equipment that is critical to deploying power networks. PDISE is compatible with DoD generator sets from 5kW to 60kW. PDISE as a program is committed solely to the warfighter.</p> <p>M200 Army Acquisition Objective (AAO) = 324; M100 AAO = 2,314; M60 AAO = 6,231; M40 AAO = 4,748; M46 AAO = 12,020.</p> <p>Advanced Medium Mobile Power Sources (AMMPS) units power or are incorporated into digital systems across the Army Portfolio to include Network/C3I, Air & Missile Defense, Long Range Precision Fires, Command Post and Combat Support/Combat Service Support Systems. AMMPS is a modernization program to provide 5kW, 10kW, 15kW, 30kW, or 60kW generators in either a skid, trailer mounted, or microgrid configuration to replace legacy generators and an ability to interface with newer technologies. AMMPS enhances operational effectiveness by increasing availability of power, while reducing noise, weight, and sustainment burdens for units. The reduced logistics footprint also significantly reduces the cost of operation.</p> <p>Army Acquisition Objective (AAO) = 16,560.</p> <p>Power Units/Mounted (AMMPS): Power Units (PUs) consist of one generator set mounted on a trailer. Power Plants (PPs) consist of two generator sets mounted on either one or two trailers (depending on size) with a switchbox installed and paralleling cables between sets. The Microgrid capability allows up to six (6) 30kW or 60kW sized AMMPS generators to automatically start and stop to match load demand and supply power to a common distribution hub.</p> <p>Power Units/Power Plants Army Acquisition Objective (AAO) = 15,167; Microgrid AAO = TBD.</p> <p>The generator sets are procured by competitive contracts through the Army Contracting Command - Aberdeen Proving Ground, Belvoir (ACC-APG, B). The trailers are procured by competitive contracts through the Army Contracting Command - Warren (ACC-W)</p> <p>LAMPS is a modernization program that will provide more mobile, reliable, and logistically supportable tactical electric power sources for the Department of Defense's 21st century digitized forces. LAMPS will replace the currently fielded 100/200 kilowatt (kW) Military Standard (MIL-STD) generator sets and Tactical Quiet Generator (TQG) sets. LAMPS will provide improved tactical electric power to combat support, and combat service support units throughout the Army and the other military Services within the DoD. The LAMPS system is based on technology currently available from industry and being used in various industrial applications. They are used to provide power to Field Hospitals, Corps Support Commands, Homeland Defense, Military Intelligence, Special Operations Command and Forward Operating Bases. The LAMPS program will provide significant improvements over currently fielded systems in size, mobility, transportability, diagnostics/prognostics, enhanced survivability and supportability. The LAMPS program includes four (4) 50/60 Hertz (Hz) configurations; two (2) skid-mounted configurations and two (2) trailer-mounted (5 ton M1061A1 trailer) configurations as Power Units Army Acquisition Objective (AAO): LAMPS = 822</p> <p>The generators and associated equipment line also funds small power generators such as 3kW Tactical Quiet Generator (TQG) sets and Small Tactical Electric Power (STEP). Initially this line will procure 3kW TQGs with reliability improvements, then STEP. The STEP program will provide the Warfighter with expeditionary power solutions designed for combat operations in the most austere environments. STEP will replace existing systems and is a modernization program that will provide improved tactical electric mobile power sources for replacement of the currently fielded 2kW (MTG) sets and 3kW (TQG) sets, initially procured in the 1990s. STEP models will be lightweight, modular, reliable and more logistically supportable power sources than their predecessors for the Department of Defense's (DoD) 21st century digitized forces. AAO: 2kW Lightweight = 6,913, 3kW Hardened = 20,601.</p>		

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 60: Generators		P-1 Line Item Number / Title: 0426MA9800 / Generators And Associated Equip
ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
Line Item MDAP/MAIS Code: N/A		

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
Army	Quantity	2,469	1,154	1,191	5	1,196	536	596	625	638
	Total Obligation Authority	124.106	100.980	39.780	0.106	39.886	46.324	40.858	42.859	40.732
ANG	Quantity	819	380	423	-	423	572	491	587	547
	Total Obligation Authority	12.000	9.673	10.233	-	10.233	11.806	16.470	18.461	12.098
AR	Quantity	619	218	187	-	187	283	238	283	276
	Total Obligation Authority	0.800	5.259	3.420	-	3.420	3.344	4.302	3.900	2.150
Total:	Quantity	3,907	1,752	1,801	5	1,806	1,391	1,325	1,495	1,461
Secondary Distribution	Total Obligation Authority	136.906	115.912	53.433	0.106	53.539	61.474	61.630	65.220	54.980

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity:
2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 60: Generators

P-1 Line Item Number / Title:
0426MA9800 / Generators And Associated Equip

ID Code (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** N/A **Other Related Program Elements:** N/A

Line Item MDAP/MAIS Code: N/A

Exhibits Schedule					Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-5	M50202 / Improved Power Distribution Illumination Systems E	P-5a			1,781 / 15.605	29 / 1.749	494 / 7.953	704 / 7.747	- / -	704 / 7.747
P-5	R45400 / P-DISE 40-200 AMP				- / 89.427	2 / 0.399	- / -	- / -	- / -	- / -
P-5	R51050 / Advanced Medium Mobile Power Systems (AMMPS)	P-5a			3,034 / 135.871	2,858 / 61.864	972 / 84.577	522 / 19.073	4 / 0.059	526 / 19.132
P-5	R59210 / Power Units/Mounted (AMMPS)	P-5a			1,009 / 114.570	930 / 62.789	193 / 14.552	297 / 17.224	1 / 0.047	298 / 17.271
P-5	R61510 / Large Advanced Mobile Power				65 / 15.675	- / 2.014	- / 1.444	- / -	- / -	- / -
P-5	R63510 / Small Tactical Electric Power	P-5a	A		- / 20.489	88 / 8.091	93 / 7.386	278 / 9.389	- / -	278 / 9.389
P-40	Total Gross/Weapon System Cost				5,889 / 391.637	3,907 / 136.906	1,752 / 115.912	1,801 / 53.433	5 / 0.106	1,806 / 53.539

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

Justification:

FY 2021 Base procurement dollars in the amount of \$53.595 million supports small, medium and large generator sets, assembly of power units and power plants, microgrids, and power feeder, distribution, storage and management systems. The program provides for the partial replacement of the current inventory of over aged, gasoline-fueled generators with modernized single fuel (diesel/JP-8) assets that will enhance the user's safety, survivability, reduce the logistics footprint and enhance reliability, availability and maintainability. These mobile generators provide tactical electric power to virtually every weapon, communication, medical and combat support system in the inventory including Network / Command, Control, Communications & Intelligence (C3I) systems; Air & Missile Defense systems; Long Range Precision Fires systems; Soldier Lethality systems, Command Posts / Tactical Operations Centers; and Brigade Combat Teams (BCTs).

IPDISE (M50202): FY 2021 Base procurement dollars in the amount of \$7.747 million is for Medium Power Distribution Systems (MPDS). The program continues fielding to Corps/Division headquarters, Brigade Combat Teams (BCTs), and Support Brigades in support of their combat support systems.

MPDS will continue production in FY 2021, Large Power Distribution Systems (LPDS) will begin production in FY 2022. Provides safe power distribution from the point of generation to the point of need - Network/ C3I, Air & Missile Defense, Long Range Precision Fires, Command Post and Combat Support/Combat Service Support systems

MPDS interfaces with AMMPS and LPDS interfaces with 100-200kW generators sets.

AMMPS (R51050): FY 2021 Base procurement dollars in the amount of \$19.073 million is for the Advanced Medium Mobile Power Sources (AMMPS) 5kW-60kW skid mounted sets, which replace aging legacy systems, reduce total ownership costs and support modernization. This program continues fielding to Corps/Division headquarters, Brigade Combat Teams (BCTs), and Support Brigades in support of their Network / Command, Control, Communications & Intelligence (C3I), Air & Missile Defense, and combat support / combat service support missions. All funding for this line has been moved from Medium Sets, SSN M53500, as of FY 2017. Principal power source for the Army's Network/C3I, Air & Missile Defense, Long Range Precision Fires, Command Post and Combat Support/Combat Service Support Systems. AMMPS generators increase readiness and operational reach while reducing noise, weight, and sustainment burdens (e.g. 60% parts commonality and 20% reduced fuel consumption across the fleet). AMMPS replaces 5-60kW legacy generators in a skid configuration, while adding a Microgrid capability and an ability to interface with newer technologies.

In FY 2021, \$,712 in Reimbursable Manpower for this line has been realigned from Reimbursable Civilian Funding to Direct Operations and Maintenance. Program support costs have been accurately updated to reflect the realignments.

Power Units/Mounted (AMMPS) (R59210): FY 2021 Base procurement dollars in the amount of \$17.224 million supports AMMPS power units, power plants, and microgrids; which replace aging legacy systems, reduce total ownership costs and support modernization. The program continues fielding to Corps/Division headquarters, Brigade Combat Teams (BCT), and Support Brigades in support of their Network /

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 60: Generators		P-1 Line Item Number / Title: 0426MA9800 / Generators And Associated Equip
ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
Line Item MDAP/MAIS Code: N/A		
<p>Command, Control, Communications & Intelligence (C3I), Air & Missile Defense, and combat support /combat service support missions. All funding for this line has been moved from POWER UNITS/POWER PLANTS, SSN R62700, as of FY 2017. AMMPS replaces 5-60kW legacy generators in a trailer mounted configuration, while adding a Microgrid capability and an ability to interface with newer technologies.</p> <p>STEP (R63510): FY 2021 Base procurement dollars in the amount of \$9.389 million will procure 3kW generators with reliability improvements. The improvements include, but are not limited to: inverter, governor actuator and governor controller. They are used primarily at the Battalion and below levels and with other critical Army assets such as THAAD, UAVs, and CBRN.</p> <p>In accordance with Section 1815 of the FY 2008 National Defense Authorization Act (P.L. 110-181), this item is necessary for use by the active and reserve components of the Armed Forces for homeland defense missions, domestic emergency responses, and providing military support to civil authorities.</p>		

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 60		P-1 Line Item Number / Title: 0426MA9800 / Generators And Associated Equip
		Item Number / Title [DODIC]: M50202 / Improved Power Distribution Illumination Systems E

ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:
---------------------------------------------------------	------------------------

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Procurement Quantity (Units in Each)	1,781	29	494	704	-	704
Gross/Weapon System Cost (\$ in Millions)	15.605	1.749	7.953	7.747	-	7.747
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	15.605	1.749	7.953	7.747	-	7.747
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	15.605	1.749	7.953	7.747	-	7.747

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (\$ in Millions)	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Thousands)	8.762	60.310	16.099	11.004	-	11.004

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
Flyaway Cost																		
Recurring Cost																		
1. Engineering Support	-	-	2.168	-	-	0.200	-	-	0.325	-	-	0.273	-	-	-	-	-	0.273
2. Engineering Change Orders	-	-	0.106	-	-	0.025	-	-	0.050	-	-	0.020	-	-	-	-	-	0.020
3. Testing	-	-	0.106	-	-	0.130	-	-	0.195	-	-	0.182	-	-	-	-	-	0.182
4. System Fielding Support	-	-	1.012	-	-	0.020	-	-	0.050	-	-	0.075	-	-	-	-	-	0.075
5. Systems Assessment	-	-	0.157	-	-	0.105	-	-	0.129	-	-	0.075	-	-	-	-	-	0.075
6. Logistics Support	-	-	1.580	-	-	0.050	-	-	0.090	-	-	0.188	-	-	-	-	-	0.188
7. Data	-	-	0.083	-	-	0.080	-	-	0.110	-	-	0.100	-	-	-	-	-	0.100
8. PM Management Support	-	-	2.773	-	-	0.980	-	-	1.091	-	-	0.848	-	-	-	-	-	0.848
<i>Subtotal: Recurring Cost</i>	-	-	7.985	-	-	1.590	-	-	2.040	-	-	1.761	-	-	-	-	-	1.761
<i>Subtotal: Flyaway Cost</i>	-	-	7.985	-	-	1.590	-	-	2.040	-	-	1.761	-	-	-	-	-	1.761
Hardware Cost																		
Recurring Cost																		
M100 (Feeder System) ^(†)	6.000	20	0.120	-	-	-	7.500	132	0.990	7.000	126	0.882	-	-	-	7.000	126	0.882
M 40 (Distribution System) ^(†)	4.200	656	2.755	-	-	0.024	-	-	-	5.000	112	0.560	-	-	-	5.000	112	0.560

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 60	P-1 Line Item Number / Title: 0426MA9800 / Generators And Associated Equip	Item Number / Title [DODIC]: M50202 / Improved Power Distribution Illumination Systems E

ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:
---------------------------------------------------------	------------------------

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
M60 (Distribution System) ^(†)	-	-	-	-	-	-	8.000	3	0.024	6.000	123	0.738	-	-	-	6.000	123	0.738
M200 (Feeder System) ^(†)	6.000	324	1.944	11.000	9	0.099	13.800	355	4.899	13.500	246	3.321	-	-	-	13.500	246	3.321
M46 U89185- UTILITY RECEPTACLE ^(†)	3.790	739	2.801	4.000	9	0.036	-	-	-	5.000	97	0.485	-	-	-	5.000	97	0.485
<i>Subtotal: Recurring Cost</i>	-	-	7.620	-	-	0.159	-	-	5.913	-	-	5.986	-	-	-	-	-	5.986
<i>Subtotal: Hardware Cost</i>	-	-	7.620	-	-	0.159	-	-	5.913	-	-	5.986	-	-	-	-	-	5.986
Gross/Weapon System Cost	8.762	1,781	15.605	60.310	29	1.749	16.099	494	7.953	11.004	704	7.747	-	-	-	11.004	704	7.747

Remarks:
 Medium Power Distribution Systems (MPDS) will continue production in FY 2021, LPDS will begin production in FY 2022.
 FY21 unit costs will be finalized when contract is awarded.

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Army	Quantity	29	494	421	-	421
	Total Obligation Authority	1.749	7.953	6.187	-	6.187
ANG	Quantity	-	-	212	-	212
	Total Obligation Authority	-	-	1.150	-	1.150
AR	Quantity	-	-	71	-	71
	Total Obligation Authority	-	-	0.410	-	0.410
Total: Secondary Distribution	Quantity	29	494	704	-	704
	Total Obligation Authority	1.749	7.953	7.747	-	7.747

(†) indicates the presence of a P-5a

UNCLASSIFIED

Exhibit P-5a, Procurement History and Planning: PB 2021 Army								Date: February 2020				
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 60			P-1 Line Item Number / Title: 0426MA9800 / Generators And Associated Equip					Item Number / Title [DODIC]: M50202 / Improved Power Distribution Illumination Systems E				
Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty <i>(Each)</i>	Unit Cost <i>(\$ K)</i>	Specs Avail Now?	Date Revision Available	RFP Issue Date
M100 (Feeder System)		2018	TBD / TBD	Option / TBD	TBD	Jun 2018	Dec 2018	20	35.000	Y		
M100 (Feeder System)		2020	TBD / TBD	C / FFP	ACC-APG, Belvoir	Jun 2020	Dec 2020	132	7.500	Y		
M100 (Feeder System)		2021	TBD / TBD	C / FFP	ACC-APG, Belvoir	Jan 2021	Jul 2021	126	7.000	Y		
M 40 (Distribution System)		2018	Fidelity Technologies Corp / Reading, PA	C / FFP	ACC-APG, Belvoir	Jan 2018	Jul 2018	656	4.200	Y		
M 40 (Distribution System)		2021	TBD / TBD	C / FFP	ACC-APG, Belvoir	Jan 2021	Jul 2021	112	5.000	Y		
M60 (Distribution System)		2020	TBD / TBD	Option / TBD	TBD	Jun 2020	Dec 2020	3	8.000	Y		
M60 (Distribution System)		2021	TBD / TBD	Option / TBD	TBD	Jan 2021	Dec 2022	123	6.000	Y		
M200 (Feeder System)		2018	Fidelity Technologies Corp / Reading, PA	C / FPIF	ACC-APG, Belvoir	Jan 2018	Jul 2018	324	6.000	Y		
M200 (Feeder System)		2019	Fidelity Technologies Corp / Reading, PA	C / FFP	ACC-APG, Belvoir	Jan 2019	Jul 2019	9	11.000	Y		
M200 (Feeder System)		2020	TBD / TBD	C / FFP	ACC-APG, Belvoir	Jun 2020	Dec 2020	355	13.800	Y		
M200 (Feeder System)		2021	TBD / TBD	C / FFP	ACC-APG, Belvoir	Jan 2021	Jul 2021	246	13.500	Y		
M46 U89185- UTILITY RECEPTACLE		2021	TBD / TBD	C / FFP	ACC-APG, Belvoir	Jan 2021	Jul 2021	97	5.000	Y		

Remarks:
 U/C price increase in FY21 due to significant reduction in production qty. and contract pricing still to be determined.
 FY20 Qty. should be 490; there is a systematic error and the total sum is no correctly reflected.

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 60	P-1 Line Item Number / Title: 0426MA9800 / Generators And Associated Equip	Item Number / Title [DODIC]: R45400 / P-DISE 40-200 AMP

ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:
---------------------------------------------------------	------------------------

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Procurement Quantity (Units in Each)	-	2	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	89.427	0.399	-	-	-	-
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	89.427	0.399	-	-	-	-
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	89.427	0.399	-	-	-	-

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (\$ in Millions)	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Thousands)	-	199.500	-	-	-	-

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
Flyaway Cost																		
Recurring Cost																		
1. Engineering Support	-	-	7.912	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2. Engineering Change Orders	-	-	0.810	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3. Testing	-	-	0.552	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4. System Fielding Support	-	-	1.020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5. System Assessment	-	-	1.316	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6. Logistics Support	-	-	8.900	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7. Data	-	-	0.624	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8. PM Management Support	-	-	11.011	-	-	0.399	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Recurring Cost</i>	-	-	32.145	-	-	0.399	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Flyaway Cost</i>	-	-	32.145	-	-	0.399	-	-	-	-	-	-	-	-	-	-	-	-
Hardware Cost																		
Recurring Cost																		
M200 (Feeder System)	56.000	2	0.112	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
M100 (Feeder System)	22.053	950	20.950	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
M60 (Distribution System)	14.472	2,252	32.591	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army												Date: February 2020					
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 60						P-1 Line Item Number / Title: 0426MA9800 / Generators And Associated Equip						Item Number / Title [DODIC]: R45400 / P-DISE 40-200 AMP					
ID Code (A=Service Ready, B=Not Service Ready) :												MDAP/MAIS Code:					

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
M 40 (Distribution System)	36.220	100	3.622	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
M46 (Utility Kit)	7.000	1	0.007	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Recurring Cost</i>	-	-	57.282	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Hardware Cost</i>	-	-	57.282	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost	-	-	89.427	199.500	2	0.399	-	-	-	-	-	-	-	-	-	-	-	-

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Army	Quantity		2	-	-	-
	Total Obligation Authority		0.399	-	-	-
Total: Secondary Distribution	Quantity		2	-	-	-
	Total Obligation Authority		0.399	-	-	-

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 60	P-1 Line Item Number / Title: 0426MA9800 / Generators And Associated Equip	Item Number / Title [DODIC]: R51050 / Advanced Medium Mobile Power Systems (AMMPS)

ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:
---------------------------------------------------------	------------------------

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Procurement Quantity (Units in Each)	3,034	2,858	972	522	4	526
Gross/Weapon System Cost (\$ in Millions)	135.871	61.864	84.577	19.073	0.059	19.132
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	135.871	61.864	84.577	19.073	0.059	19.132
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	135.871	61.864	84.577	19.073	0.059	19.132

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (\$ in Millions)	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Thousands)	44.783	21.646	87.013	36.538	14.750	36.373

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
Flyaway Cost																		
Recurring Cost																		
1. Engineering Support	-	-	3.704	-	-	0.800	-	-	0.909	-	-	0.802	-	-	-	-	-	0.802
2. Engineering Change Orders	-	-	0.189	-	-	0.120	-	-	0.155	-	-	0.100	-	-	-	-	-	0.100
3. Testing	-	-	0.304	-	-	0.160	-	-	0.190	-	-	0.100	-	-	-	-	-	0.100
4. System Fielding Support	-	-	5.388	-	-	2.400	-	-	2.710	-	-	2.100	-	-	-	-	-	2.100
5. System Assessment	-	-	1.590	-	-	0.350	-	-	0.365	-	-	0.140	-	-	-	-	-	0.140
6. Logistics Support	-	-	5.350	-	-	0.684	-	-	0.786	-	-	0.473	-	-	-	-	-	0.473
7. Data	-	-	0.530	-	-	0.202	-	-	0.229	-	-	0.170	-	-	-	-	-	0.170
8. PM Management Support	-	-	6.844	-	-	1.586	-	-	2.105	-	-	1.767	-	-	-	-	-	1.767
<i>Subtotal: Recurring Cost</i>	-	-	23.899	-	-	6.302	-	-	7.449	-	-	5.652	-	-	-	-	-	5.652
<i>Subtotal: Flyaway Cost</i>	-	-	23.899	-	-	6.302	-	-	7.449	-	-	5.652	-	-	-	-	-	5.652
Hardware Cost																		
Recurring Cost																		
5kW/60Hz (MEP1030) ^(†)	26.000	1,985	51.610	19.000	476	9.044	22.000	1,110	24.420	22.500	200	4.500	-	-	-	22.500	200	4.500
10kW/60Hz (MEP1040) ^(†)	23.500	2,118	49.773	24.000	1,250	30.000	25.000	1,023	25.575	26.000	166	4.316	-	-	-	26.000	166	4.316

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 60		P-1 Line Item Number / Title: 0426MA9800 / Generators And Associated Equip
		Item Number / Title [DODIC]: R51050 / Advanced Medium Mobile Power Systems (AMMPS)
ID Code (A=Service Ready, B=Not Service Ready) :		MDAP/MAIS Code:

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
10kW, 400Hz (MEP 1041) ^(†)	-	-	-	-	-	-	31.000	6	0.186	29.500	1	0.029	29.500	2	0.059	29.333	3	0.088
15kW/60Hz (MEP1050) ^(†)	9.500	260	2.470	24.000	507	12.168	27.000	703	18.981	28.000	91	2.548	-	-	-	28.000	91	2.548
15kW/400Hz (MEP1051) ^(†)	24.000	192	4.608	-	-	-	32.000	128	4.096	32.000	49	1.568	-	-	-	32.000	49	1.568
30kW/60Hz (MEP1060) ^(†)	84.000	25	2.100	29.000	150	4.350	30.000	69	2.070	31.000	3	0.093	-	-	-	31.000	3	0.093
30kW/400Hz (MEP1061) ^(†)	32.000	8	0.256	-	-	-	40.000	18	0.720	40.000	7	0.280	-	-	-	40.000	7	0.280
60kW/60Hz (MEP1070) ^(†)	38.500	30	1.155	-	-	-	36.000	30	1.080	36.000	1	0.036	-	-	-	36.000	1	0.036
60kW/400z(MEP1071)	-	-	-	-	-	-	-	-	-	51.000	1	0.051	-	-	-	51.000	1	0.051
<i>Subtotal: Recurring Cost</i>	-	-	111.972	-	-	55.562	-	-	77.128	-	-	13.421	-	-	0.059	-	-	13.480
<i>Subtotal: Hardware Cost</i>	-	-	111.972	-	-	55.562	-	-	77.128	-	-	13.421	-	-	0.059	-	-	13.480
Gross/Weapon System Cost	44.783	3,034	135.871	21.646	2,858	61.864	87.013	972	84.577	36.538	522	19.073	14.750	4	0.059	36.373	526	19.132

Remarks:
 AMMPS IDIQ contract currently active (FY18-22).
 Production and Deployment Phase on going. A-model generator (AMMPS generators with new Advanced Digital Control System (ADCS)) production on current contract.
 FY20 quantity should be 3,087; FY21 quantity should be 519 Base. Systematic error does not reflect correct quantities.
 FY21 Base funds; qty should be 519. FY21 OCO funds; qty should be 2.

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Army	Quantity	1,420	465	315	4	319
	Total Obligation Authority	49.064	73.001	9.040	0.059	9.099
ANG	Quantity	819	322	122	-	122
	Total Obligation Authority	12.000	7.407	7.750	-	7.750
AR	Quantity	619	185	85	-	85
	Total Obligation Authority	0.800	4.169	2.283	-	2.283
Total:	Quantity	2,858	972	522	4	526

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 60	P-1 Line Item Number / Title: 0426MA9800 / Generators And Associated Equip	Item Number / Title [DODIC]: R51050 / Advanced Medium Mobile Power Systems (AMMPS)

ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:
---------------------------------------------------------	------------------------

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Secondary Distribution	Total Obligation Authority	61.864	84.577	19.073	0.059	19.132

(t) indicates the presence of a P-5a

UNCLASSIFIED

Exhibit P-5a, Procurement History and Planning: PB 2021 Army								Date: February 2020				
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 60			P-1 Line Item Number / Title: 0426MA9800 / Generators And Associated Equip					Item Number / Title [DODIC]: R51050 / Advanced Medium Mobile Power Systems (AMMPS)				
Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty (Each)	Unit Cost (\$ K)	Specs Avail Now?	Date Revision Available	RFP Issue Date
5kW/60Hz (MEP1030)		2018	CUMMINS POWER GENERATION; INC / Minneapolis, MN	SS / FFP	ACC-APG, Belvoir	Sep 2018	Oct 2019	535	35.929	Y		
5kW/60Hz (MEP1030)		2019	CUMMINS POWER GENERATION; INC / Minneapolis, MN	SS / FFP	ACC-APG, Belvoir	Feb 2019	Feb 2020	476	19.000	Y		
5kW/60Hz (MEP1030)		2020	CUMMINS POWER GENERATION; INC / Minneapolis, MN	SS / FFP	ACC-APG, Belvoir	Feb 2020	Feb 2021	1,110	22.000	Y		
5kW/60Hz (MEP1030)		2021	CUMMINS POWER GENERATION; INC / Minneapolis, MN	SS / FFP	ACC-APG, Belvoir	Apr 2021	Feb 2022	200	22.500	Y		
10kW/60Hz (MEP1040)		2018	CUMMINS POWER GENERATION; INC / Minneapolis, MN	SS / FFP	ACC-APG, Belvoir	Sep 2018	Oct 2019	800	22.695	Y		
10kW/60Hz (MEP1040)		2019	CUMMINS POWER GENERATION; INC / Minneapolis, MN	SS / FFP	ACC-APG, Belvoir	Feb 2019	Feb 2020	1,250	24.000	Y		
10kW/60Hz (MEP1040)		2020	CUMMINS POWER GENERATION; INC / Minneapolis, MN	SS / FFP	ACC-APG, Belvoir	Feb 2020	Feb 2021	1,023	25.000	Y		
10kW/60Hz (MEP1040)		2021	CUMMINS POWER GENERATION; INC / Minneapolis, MN	SS / FFP	ACC-APG, Belvoir	Feb 2021	Feb 2022	166	26.000	Y		
10kW, 400Hz (MEP 1041)		2021	CUMMINS POWER GENERATION; INC / Minneapolis, MN	SS / FFP	ACC-APG, Belvoir	Feb 2021	Feb 2022	1	29.333	Y		
15kW/60Hz (MEP1050)		2018	CUMMINS POWER GENERATION; INC / Minneapolis, MN	SS / FFP	ACC-APG, Belvoir	Sep 2018	Oct 2019	190	3.200	Y		
15kW/60Hz (MEP1050)		2019	CUMMINS POWER GENERATION; INC / Minneapolis, MN	SS / FFP	ACC-APG, Belvoir	Feb 2019	Feb 2020	507	24.000	Y		
15kW/60Hz (MEP1050)		2020	CUMMINS POWER GENERATION; INC / Minneapolis, MN	SS / FFP	ACC-APG, Belvoir	Feb 2020	Feb 2021	703	27.000	Y		
15kW/60Hz (MEP1050)		2021	CUMMINS POWER GENERATION; INC / Minneapolis, MN	SS / FFP	ACC-APG, Belvoir	Feb 2021	Feb 2022	91	28.000	Y		
15kW/400Hz (MEP1051)		2018	CUMMINS POWER GENERATION; INC / Minneapolis, MN	SS / FFP	ACC-APG, Belvoir	Sep 2018	Oct 2019	192	23.318	Y		
15kW/400Hz (MEP1051)		2020	CUMMINS POWER GENERATION; INC / Minneapolis, MN	SS / FFP	ACC-APG, Belvoir	Feb 2020	Feb 2021	128	32.000	Y		
15kW/400Hz (MEP1051)		2021	CUMMINS POWER GENERATION; INC / Minneapolis, MN	SS / FFP	ACC-APG, Belvoir	Feb 2021	Oct 2022	49	32.000	Y		
30kW/60Hz (MEP1060)		2018	CUMMINS POWER GENERATION; INC / Minneapolis, MN	SS / FFP	ACC-APG, Belvoir	Sep 2018	Oct 2019	25	84.240	Y		
30kW/60Hz (MEP1060)		2021	CUMMINS POWER GENERATION; INC / Minneapolis, MN	SS / FFP	ACC-APG, Belvoir	Feb 2021	Feb 2022	3	31.000	Y		
30kW/400Hz (MEP1061)		2020	CUMMINS POWER GENERATION; INC / Minneapolis, MN	SS / FFP	ACC-APG, Belvoir	Feb 2020	Feb 2021	18	40.000	Y		

UNCLASSIFIED

Exhibit P-5a, Procurement History and Planning: PB 2021 Army								Date: February 2020				
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 60			P-1 Line Item Number / Title: 0426MA9800 / Generators And Associated Equip					Item Number / Title [DODIC]: R51050 / Advanced Medium Mobile Power Systems (AMMPS)				
Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty (Each)	Unit Cost (\$ K)	Specs Avail Now?	Date Revision Available	RFP Issue Date
30kW/400Hz (MEP1061)		2021	CUMMINS POWER GENERATION; INC / Minneapolis, MN	SS / FFP	ACC-APG,Belvoir	Feb 2021	Feb 2022	7	40.000	Y		
60kW/60Hz (MEP1070)		2021	CUMMINS POWER GENERATION; INC / Minneapolis, MN	SS / FFP	ACC-APG,Belvoir	Feb 2021	Feb 2022	1	36.000	Y		

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 60		P-1 Line Item Number / Title: 0426MA9800 / Generators And Associated Equip
		Item Number / Title [DODIC]: R59210 / Power Units/Mounted (AMMPS)

ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:
---------------------------------------------------------	------------------------

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Procurement Quantity (Units in Each)	1,009	930	193	297	1	298
Gross/Weapon System Cost (\$ in Millions)	114.570	62.789	14.552	17.224	0.047	17.271
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	114.570	62.789	14.552	17.224	0.047	17.271
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	114.570	62.789	14.552	17.224	0.047	17.271

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (\$ in Millions)	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Thousands)	113.548	67.515	75.399	57.993	47.000	57.956

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
Flyaway Cost																		
Recurring Cost																		
1. Engineering Support	-	-	3.899	-	-	0.782	-	-	0.777	-	-	0.659	-	-	-	-	-	0.659
2. Engineering Change Orders	-	-	0.068	-	-	0.022	-	-	0.022	-	-	0.015	-	-	-	-	-	0.015
3. Testing	-	-	1.292	-	-	0.055	-	-	0.055	-	-	0.035	-	-	-	-	-	0.035
4. System Fielding Support	-	-	3.448	-	-	1.439	-	-	1.418	-	-	1.280	-	-	-	-	-	1.280
5. System Assessment	-	-	1.500	-	-	0.359	-	-	0.327	-	-	0.280	-	-	-	-	-	0.280
6. Logistics Support	-	-	2.423	-	-	0.595	-	-	0.572	-	-	0.460	-	-	-	-	-	0.460
7. Data	-	-	0.799	-	-	0.236	-	-	0.207	-	-	0.149	-	-	-	-	-	0.149
8. PM Management Support	-	-	7.999	-	-	2.489	-	-	2.128	-	-	1.932	-	-	0.016	-	-	1.948
<i>Subtotal: Recurring Cost</i>	-	-	21.428	-	-	5.977	-	-	5.506	-	-	4.810	-	-	0.016	-	-	4.826
<i>Subtotal: Flyaway Cost</i>	-	-	21.428	-	-	5.977	-	-	5.506	-	-	4.810	-	-	0.016	-	-	4.826
Hardware Cost																		
Recurring Cost																		
PP3001, two 5kW 50/60Hz, LTT ^(†)	53.000	26	1.378	55.000	84	4.620	56.000	29	1.624	60.000	10	0.600	-	-	-	60.000	10	0.600
PP3102, two 10kW 50/60Hz ^(†)	110.000	70	7.700	61.000	92	5.612	64.000	39	2.496	62.000	3	0.186	-	-	-	62.000	3	0.186

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 60		P-1 Line Item Number / Title: 0426MA9800 / Generators And Associated Equip
		Item Number / Title [DODIC]: R59210 / Power Units/Mounted (AMMPS)
ID Code (A=Service Ready, B=Not Service Ready) :		MDAP/MAIS Code:

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
PP3105, two 30kW 50/60Hz ^(†)	69.000	13	0.897	70.000	70	4.900	-	-	-	68.000	4	0.272	-	-	-	68.000	4	0.272
PP3106, two 60kW 50/60Hz ^(†)	83.000	42	3.486	83.000	42	3.486	-	-	-	83.000	2	0.166	-	-	-	83.000	2	0.166
PU2001, 5kW 50/60Hz ^(†)	27.000	423	11.421	29.000	286	8.294	30.000	28	0.840	31.000	73	2.263	31.000	1	0.031	31.000	74	2.294
PP3003, two 15kW 50/60Hz ^(†)	67.000	87	5.829	63.000	15	0.945	75.000	5	0.375	76.000	46	3.496	-	-	-	76.000	46	3.496
PU2002, 10kW 50/60Hz ^(†)	29.000	371	10.759	32.103	165	5.297	33.000	37	1.221	34.000	77	2.618	-	-	-	34.000	77	2.618
PU2101, 15kW 50/60Hz, M200 ^(†)	35.000	800	28.000	36.000	260	9.360	50.000	35	1.750	36.000	49	1.764	-	-	-	36.000	49	1.764
PU2102, 30kW 50/60Hz ^(†)	38.000	405	15.390	40.000	130	5.200	-	-	-	39.000	18	0.702	-	-	-	39.000	18	0.702
PU2112, 30kW 400Hz ^(†)	39.000	30	1.170	43.000	26	1.118	-	-	-	-	-	-	-	-	-	-	-	-
PU 2111, 15Kw/400Hz ^(†)	-	-	-	36.000	30	1.080	39.000	10	0.390	-	-	-	-	-	-	-	-	-
PU2003, 15kW/60Hz, LTT ^(†)	37.000	71	2.627	35.000	30	1.050	35.000	10	0.350	37.000	2	0.074	-	-	-	37.000	2	0.074
PU2103, 60kW/60Hz ^(†)	39.000	115	4.485	39.000	150	5.850	-	-	-	39.000	7	0.273	-	-	-	39.000	7	0.273
<i>Subtotal: Recurring Cost</i>	-	-	93.142	-	-	56.812	-	-	9.046	-	-	12.414	-	-	0.031	-	-	12.445
<i>Subtotal: Hardware Cost</i>	-	-	93.142	-	-	56.812	-	-	9.046	-	-	12.414	-	-	0.031	-	-	12.445
Gross/Weapon System Cost	113.548	1,009	114.570	67.515	930	62.789	75.399	193	14.552	57.993	297	17.224	47.000	1	0.047	57.956	298	17.271

Remarks:
FY21 quantity should reflect 259 Base, 1 OCO on P40. System error caused incorrect data feed.

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Army	Quantity	930	102	177	1	178
	Total Obligation Authority	62.789	11.196	15.164	0.047	15.211
ANG	Quantity	-	58	89	-	89

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 60	P-1 Line Item Number / Title: 0426MA9800 / Generators And Associated Equip	Item Number / Title [DODIC]: R59210 / Power Units/Mounted (AMMPS)

ID Code (A=Service Ready, B=Not Service Ready) : _____ **MDAP/MAIS Code:** _____

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
	Total Obligation Authority	-	2.266	1.333	-	1.333
AR	Quantity	-	33	31	-	31
	Total Obligation Authority	-	1.090	0.727	-	0.727
Total:	Quantity	930	193	297	1	298
Secondary Distribution	Total Obligation Authority	62.789	14.552	17.224	0.047	17.271

(t) indicates the presence of a P-5a

UNCLASSIFIED

Exhibit P-5a, Procurement History and Planning: PB 2021 Army								Date: February 2020				
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 60			P-1 Line Item Number / Title: 0426MA9800 / Generators And Associated Equip					Item Number / Title [DODIC]: R59210 / Power Units/Mounted (AMMPS)				
Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty (Each)	Unit Cost (\$ K)	Specs Avail Now?	Date Revision Available	RFP Issue Date
PP3001, two 5kW 50/60Hz, LTT		2018	CUMMINS POWER GENERATION; INC / Minneapolis, MN	SS / FFP	ACC-APG, Belvoir	Sep 2018	Oct 2019	26	51.308	Y		
PP3001, two 5kW 50/60Hz, LTT		2019	CUMMINS POWER GENERATION; INC / Minneapolis, MN	SS / FFP	ACC-APG, Belvoir	Feb 2019	Feb 2020	84	55.000	Y		
PP3001, two 5kW 50/60Hz, LTT		2020	CUMMINS POWER GENERATION; INC / Minneapolis, MN	SS / FFP	ACC-APG, Belvoir	Feb 2020	Feb 2021	29	56.000	Y		
PP3001, two 5kW 50/60Hz, LTT		2021	CUMMINS POWER GENERATION; INC / Minneapolis, MN	SS / FFP	ACC-APG, Belvoir	Feb 2021	Feb 2022	10	60.000	Y		
PP3102, two 10kW 50/60Hz		2018	CUMMINS POWER GENERATION; INC / Minneapolis, MN	SS / FFP	ACC-APG, Belvoir	Sep 2018	Oct 2019	35	150.314	Y		
PP3102, two 10kW 50/60Hz		2019	CUMMINS POWER GENERATION; INC / Minneapolis, MN	SS / FFP	ACC-APG, Belvoir	Feb 2019	Feb 2020	92	61.000	Y		
PP3102, two 10kW 50/60Hz		2020	CUMMINS POWER GENERATION; INC / Minneapolis, MN	SS / FFP	ACC-APG, Belvoir	Feb 2020	Feb 2021	39	64.000	Y		
PP3102, two 10kW 50/60Hz		2021	CUMMINS POWER GENERATION; INC / Minneapolis, MN	SS / FFP	ACC-APG, Belvoir	Feb 2021	Feb 2022	3	62.000	Y		
PP3105, two 30kW 50/60Hz		2018	CUMMINS POWER GENERATION; INC / Minneapolis, MN	SS / FFP	ACC-APG, Belvoir	Sep 2018	Oct 2019	10	820.100	Y		
PP3105, two 30kW 50/60Hz		2019	CUMMINS POWER GENERATION; INC / Minneapolis, MN	SS / FFP	ACC-APG, Belvoir	Feb 2019	Feb 2020	70	70.000	Y		
PP3105, two 30kW 50/60Hz		2021	CUMMINS POWER GENERATION; INC / Minneapolis, MN	SS / FFP	ACC=APG, Belvoir	Feb 2021	Feb 2022	4	68.000	Y		
PP3106, two 60kW 50/60Hz		2018	CUMMINS POWER GENERATION; INC / Minneapolis, MN	SS / FFP	ACC-APG, Belvoir	Sep 2018	Oct 2019	40	82.300	Y		
PP3106, two 60kW 50/60Hz		2019	CUMMINS POWER GENERATION; INC / Minneapolis, MN	SS / FFP	ACC-APG, Belvoir	Feb 2019	Feb 2020	42	83.000	Y		
PP3106, two 60kW 50/60Hz		2021	CUMMINS POWER GENERATION; INC / Minneapolis, MN	SS / FFP	ACC-APG, Belvoir	Feb 2021	Feb 2022	2	83.000	N		
PU2001, 5kW 50/60Hz		2018	CUMMINS POWER GENERATION; INC / Minneapolis, MN	SS / FFP	ACC-APG, Belvoir	Sep 2018	Oct 2019	186	20.000	Y		
PU2001, 5kW 50/60Hz		2019	CUMMINS POWER GENERATION; INC / Minneapolis, MN	SS / FFP	ACC-APG, Belvoir	Feb 2019	Feb 2020	286	29.000	Y		
PU2001, 5kW 50/60Hz		2020	CUMMINS POWER GENERATION; INC / Minneapolis, MN	SS / FFP	ACC-APG, Belvoir	Feb 2020	Feb 2021	28	30.000	Y		
PU2001, 5kW 50/60Hz		2021	CUMMINS POWER GENERATION; INC / Minneapolis, MN	SS / FFP	ACC-APG, Belvoir	Feb 2021	Feb 2022	74	31.000	Y		
PP3003, two 15kW 50/60Hz		2017	CUMMINS POWER GENERATION; INC / Minneapolis, MN	SS / FFP	Philadelphia, PA	Jan 2017	Jun 2018	12	63.040	Y		

UNCLASSIFIED

Exhibit P-5a, Procurement History and Planning: PB 2021 Army								Date: February 2020				
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 60			P-1 Line Item Number / Title: 0426MA9800 / Generators And Associated Equip					Item Number / Title [DODIC]: R59210 / Power Units/Mounted (AMMPS)				
Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty (Each)	Unit Cost (\$ K)	Specs Avail Now?	Date Revision Available	RFP Issue Date
PP3003, two 15kW 50/60Hz		2019	CUMMINS POWER GENERATION; INC / Minneapolis, MN	SS / FFP	ACC-APG, Belvior	Feb 2019	Feb 2020	15	63.000	Y		
PP3003, two 15kW 50/60Hz		2020	CUMMINS POWER GENERATION; INC / Minneapolis, MN	SS / FFP	ACC-APG, Belvoir	Feb 2020	Feb 2021	5	75.000	Y		
PP3003, two 15kW 50/60Hz		2021	CUMMINS POWER GENERATION; INC / Minneapolis, MN	SS / FFP	ACC-APG, Belvoir	Feb 2021	Feb 2022	46	76.000	Y		
PU2002, 10kW 50/60Hz		2018	CUMMINS POWER GENERATION; INC / Minneapolis, MN	SS / FFP	ACC-APG, Belvoir	Sep 2018	Oct 2019	130	27.000	Y		
PU2002, 10kW 50/60Hz		2019	CUMMINS POWER GENERATION; INC / Minneapolis, MN	SS / FFP	ACC-APG, Belvior	Feb 2019	Feb 2020	165	32.103	Y		
PU2002, 10kW 50/60Hz		2020	CUMMINS POWER GENERATION; INC / Minneapolis, MN	SS / FFP	ACC-APG, Belvoir	Feb 2020	Feb 2021	37	33.000	Y		
PU2002, 10kW 50/60Hz		2021	CUMMINS POWER GENERATION; INC / Minneapolis, MN	SS / FFP	ACC-APG, Belvoir	Feb 2021	Feb 2022	77	34.000	Y		
PU2101, 15kW 50/60Hz, M200		2018	CUMMINS POWER GENERATION; INC / Minneapolis, MN	SS / FFP	ACC-APG, Belvoir	Sep 2018	Oct 2019	35	46.743	Y		
PU2101, 15kW 50/60Hz, M200		2019	CUMMINS POWER GENERATION; INC / Minneapolis, MN	SS / FFP	ACC-APG, Belvior	Feb 2019	Feb 2020	260	36.000	Y		
PU2101, 15kW 50/60Hz, M200		2020	CUMMINS POWER GENERATION; INC / Minneapolis, MN	SS / FFP	ACC-APG, Belvior	Feb 2020	Feb 2021	35	50.000	Y		
PU2101, 15kW 50/60Hz, M200		2021	CUMMINS POWER GENERATION; INC / Minneapolis, MN	SS / FFP	ACC-APG, Belvoir	Feb 2021	Feb 2022	49	36.000	Y		
PU2102, 30kW 50/60Hz		2018	CUMMINS POWER GENERATION; INC / Minneapolis, MN	SS / FFP	ACC-APG, Belvoir	Sep 2018	Oct 2019	25	44.640	Y		
PU2102, 30kW 50/60Hz		2019	CUMMINS POWER GENERATION; INC / Minneapolis, MN	SS / FFP	ACC-APG, Belvior	Feb 2019	Feb 2020	130	40.000	Y		
PU2102, 30kW 50/60Hz		2021	CUMMINS POWER GENERATION; INC / Minneapolis, MN	SS / FFP	ACC-APG, Belvoir	Feb 2021	Feb 2022	18	39.000	N		
PU2112, 30kW 400Hz		2018	CUMMINS POWER GENERATION; INC / Minneapolis, MN	SS / FFP	ACC-APG, Belvoir	Sep 2018	Oct 2019	30	38.567	Y		
PU2112, 30kW 400Hz		2019	CUMMINS POWER GENERATION; INC / Minneapolis, MN	SS / FFP	ACC-APG, Belvior	Feb 2019	Feb 2020	26	43.000	Y		
PU 2111, 15Kw/400Hz		2019	CUMMINS POWER GENERATION; INC / Minneapolis, MN	SS / FFP	ACC-APG, Belvior	Feb 2019	Feb 2020	30	36.000	Y		
PU 2111, 15Kw/400Hz		2020	CUMMINS POWER GENERATION; INC / Minneapolis, MN	SS / FFP	ACC-APG, Belvoir	Feb 2020	Feb 2021	10	39.000	Y		
PU2003, 15kW/60Hz, LTT		2019	CUMMINS POWER GENERATION; INC / Minneapolis, MN	SS / FFP	ACC-APG, Belvior	Feb 2019	Feb 2020	30	35.000	Y		

UNCLASSIFIED

Exhibit P-5a, Procurement History and Planning: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 60	P-1 Line Item Number / Title: 0426MA9800 / Generators And Associated Equip	Item Number / Title [DODIC]: R59210 / Power Units/Mounted (AMMPS)
----------------------------------------------------------------------------------	--------------------------------------------------------------------------------------	-----------------------------------------------------------------------------

Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty <i>(Each)</i>	Unit Cost <i>(\$ K)</i>	Specs Avail Now?	Date Revision Available	RFP Issue Date
PU2003, 15kW/60Hz, LTT		2020	CUMMINS POWER GENERATION; INC / Minneapolis, MN	SS / FFP	ACC-APG, Belvoir	Feb 2020	Feb 2021	10	35.000	Y		
PU2003, 15kW/60Hz, LTT		2021	CUMMINS POWER GENERATION; INC / Minneapolis, MN	SS / FFP	ACC-APG, Belvoir	Feb 2021	Feb 2022	2	37.000	Y		
PU2103, 60kW/60Hz		2019	CUMMINS POWER GENERATION; INC / Minneapolis, MN	SS / FFP	ACC-APG, Belvoir	Feb 2019	Feb 2020	150	39.000	Y		
PU2103, 60kW/60Hz		2021	CUMMINS POWER GENERATION; INC / Minneapolis, MN	SS / FFP	ACC-APG, Belvoir	Feb 2021	Feb 2022	7	39.000	N		

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 60	P-1 Line Item Number / Title: 0426MA9800 / Generators And Associated Equip	Item Number / Title [DODIC]: R61510 / Large Advanced Mobile Power

ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:
---------------------------------------------------------	------------------------

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Procurement Quantity (Units in Each)	65	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	15.675	2.014	1.444	-	-	-
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	15.675	2.014	1.444	-	-	-
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	15.675	2.014	1.444	-	-	-

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (\$ in Millions)	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Thousands)	241.154	-	-	-	-	-

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
Flyaway Cost																		
Recurring Cost																		
1. Engineering Support	-	-	0.390	-	-	0.976	-	-	0.824	-	-	-	-	-	-	-	-	-
2. Engineering Change Orders	-	-	0.010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3. Testing	-	-	0.020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4. System Fielding Support	-	-	0.050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5. Systems Assessment	-	-	0.113	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6. Logistics Support	-	-	0.370	-	-	0.500	-	-	0.260	-	-	-	-	-	-	-	-	-
7. Data	-	-	0.050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8. PM Management Support	-	-	0.802	-	-	0.538	-	-	0.360	-	-	-	-	-	-	-	-	-
<i>Subtotal: Recurring Cost</i>	-	-	1.805	-	-	2.014	-	-	1.444	-	-	-	-	-	-	-	-	-
<i>Subtotal: Flyaway Cost</i>	-	-	1.805	-	-	2.014	-	-	1.444	-	-	-	-	-	-	-	-	-
Hardware Cost																		
Recurring Cost																		
LAMPS 100kW Skid	73.439	41	3.011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LAMPS 100kW Power Unit	89.904	83	7.462	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LAMPS PDU	42.463	80	3.397	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Recurring Cost</i>	-	-	13.870	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Hardware Cost</i>	-	-	13.870	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army												Date: February 2020					
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 60						P-1 Line Item Number / Title: 0426MA9800 / Generators And Associated Equip						Item Number / Title [DODIC]: R61510 / Large Advanced Mobile Power					
ID Code (A=Service Ready, B=Not Service Ready) :												MDAP/MAIS Code:					

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
Gross/Weapon System Cost	241.154	65	15.675	-	-	2.014	-	-	1.444	-	-	-	-	-	-	-	-	-

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Army	Quantity	-	-	-	-	-
	Total Obligation Authority	2.014	1.444	-	-	-
Total:	Quantity	-	-	-	-	-
Secondary Distribution	Total Obligation Authority	2.014	1.444	-	-	-

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 60		P-1 Line Item Number / Title: 0426MA9800 / Generators And Associated Equip
		Item Number / Title [DODIC]: R63510 / Small Tactical Electric Power

ID Code (A=Service Ready, B=Not Service Ready) : A	MDAP/MAIS Code:
-----------------------------------------------------------	------------------------

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Procurement Quantity (Units in Each)	-	88	93	278	-	278
Gross/Weapon System Cost (\$ in Millions)	20.489	8.091	7.386	9.389	-	9.389
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	20.489	8.091	7.386	9.389	-	9.389
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	20.489	8.091	7.386	9.389	-	9.389

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (\$ in Millions)	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Thousands)	-	91.943	79.419	33.773	-	33.773

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
Flyaway Cost																		
Recurring Cost																		
1. Engineering Support	-	-	3.723	-	-	3.760	-	-	3.147	-	-	2.459	-	-	-	-	-	2.459
2. Engineering Change Orders	-	-	0.125	-	-	0.001	-	-	0.025	-	-	0.026	-	-	-	-	-	0.026
3. Testing	-	-	0.342	-	-	0.152	-	-	0.078	-	-	0.079	-	-	-	-	-	0.079
4. System Assessment	-	-	1.000	-	-	0.086	-	-	0.200	-	-	0.149	-	-	-	-	-	0.149
5. Logistic Support	-	-	0.135	-	-	1.009	-	-	0.965	-	-	1.500	-	-	-	-	-	1.500
6. Data	-	-	2.000	-	-	0.076	-	-	-	-	-	0.184	-	-	-	-	-	0.184
7. PM Management Support	-	-	13.164	-	-	1.687	-	-	1.216	-	-	1.239	-	-	-	-	-	1.239
G18358 3kW/60Hz TQG Generator ⁽¹⁾	-	-	-	15.000	88	1.320	13.000	135	1.755	13.500	278	3.753	-	-	-	13.500	278	3.753
<i>Subtotal: Recurring Cost</i>	-	-	20.489	-	-	8.091	-	-	7.386	-	-	9.389	-	-	-	-	-	9.389
<i>Subtotal: Flyaway Cost</i>	-	-	20.489	-	-	8.091	-	-	7.386	-	-	9.389	-	-	-	-	-	9.389
Gross/Weapon System Cost	-	-	20.489	91.943	88	8.091	79.419	93	7.386	33.773	278	9.389	-	-	-	33.773	278	9.389

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Army	Quantity	88	93	278	-	278
	Total Obligation Authority	8.091	7.386	9.389	-	9.389

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army				Date: February 2020		
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 60		P-1 Line Item Number / Title: 0426MA9800 / Generators And Associated Equip		Item Number / Title [DODIC]: R63510 / Small Tactical Electric Power		
ID Code (A=Service Ready, B=Not Service Ready) : A			MDAP/MAIS Code:			
Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Total:	Quantity	88	93	278	-	278
Secondary Distribution	Total Obligation Authority	8.091	7.386	9.389	-	9.389

(t) indicates the presence of a P-5a

UNCLASSIFIED

Exhibit P-5a, Procurement History and Planning: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 60	P-1 Line Item Number / Title: 0426MA9800 / Generators And Associated Equip	Item Number / Title [DODIC]: R63510 / Small Tactical Electric Power
----------------------------------------------------------------------------------	--------------------------------------------------------------------------------------	-------------------------------------------------------------------------------

Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty <i>(Each)</i>	Unit Cost <i>(\$ K)</i>	Specs Avail Now?	Date Revision Available	RFP Issue Date
G18358 3kW/60Hz TQG Generator		2019	TBD / TBD	C / FFP	ACC-APG	Sep 2019	Mar 2020	88	15.000	Y		
G18358 3kW/60Hz TQG Generator		2020	TBD / TBD	C / FFP	ACC-APG	Sep 2020	Apr 2021	135	13.000	Y		
G18358 3kW/60Hz TQG Generator		2021	TBD / TBD	C / FFP	ACC-APG	Feb 2021	Aug 2021	278	13.500	N		

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 60: Generators	P-1 Line Item Number / Title: 9012R42501 / Tactical Electric Power Recapitalization
-------------------------------------------------------------------------------------------------------------------------------------------------------	-----------------------------------------------------------------------------------------------

ID Code (A=Service Ready, B=Not Service Ready):	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
--------------------------------------------------------	-----------------------------------------------	--------------------------------------------

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	149	76	28	48	-	48	18	4	4	4	-	331
Gross/Weapon System Cost (<i>\$ in Millions</i>)	29.681	8.333	14.814	22.216	-	22.216	11.490	5.095	5.095	5.873	-	102.597
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	29.681	8.333	14.814	22.216	-	22.216	11.490	5.095	5.095	5.873	-	102.597
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	29.681	8.333	14.814	22.216	-	22.216	11.490	5.095	5.095	5.873	-	102.597

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Thousands</i>)	199.201	109.645	529.071	462.833	-	462.833	638.333	1,273.750	1,273.750	1,468.250	-	309.961

Description:

This line supports the Army Air and Missile Defense Modernization Strategy, Priority #5. This line provides power generation and distribution that enables the Army to employ Air and Missile Defense systems across the operational spectrum.

The Deployable Power Generation and Distribution System (DPGDS) Power Unit (PU) provides mission critical power to the Nation's strategic missile defense assets; specifically the AN/TPY-2 Forward-Based Mode (FBM) X-Band Transportable Radar. These radars are critical in detecting, classifying and tracking ballistic missiles. The power unit is also used by the Army's only Prime Power Battalion to support its National Response Framework (NRF) mission, providing DoD support to civil defense. The recapitalization effort leverages significant technology advancements over past 15 years and extends the economic useful life of these PUs by bringing the set back to zero hours.

The recapitalized MEP-PU-810 will come in two variants, the MEP-PU-810C, a towed trailer configuration, and the MEP-PU-810D, a 5th wheel configuration DoT approved for over the road use at 55 mph. Throughout the Department of Defense there are 165 'A' Models and 66 'B' Models supporting numerous missions, such as supporting the nation's Ballistic Missile Defense System.

Capabilities:

Once fielded, the MEP-PU-810C/D Power Unit (PU) will be at the center of the Army's Deployable Power Generation and Distribution System (DPGDS)

Portable, multi-fuel engine driven generator rated to provide 800kW of electrical power at 4160 Volts Alternating Current (VAC)

Completely self-contained, integrated trailer

Capable of operating standalone or in a multi-unit Microgrid configuration

Equipped with modern, built-in controls & its own electrical distribution bus

High Altitude Electromagnetic Pulse (HEMP) hardened

Secondary Distribution	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
Army									
Quantity	76	28	48	-	48	18	4	4	4
Total Obligation Authority	8.333	14.814	22.216	-	22.216	11.490	5.095	5.095	5.873

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 60: Generators	P-1 Line Item Number / Title: 9012R42501 / Tactical Electric Power Recapitalization
----------------------------------------------------------------------------------------------------------------------------------------------------------	-----------------------------------------------------------------------------------------------

ID Code (A=Service Ready, B=Not Service Ready):	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
--------------------------------------------------------	-----------------------------------------------	--------------------------------------------

Line Item MDAP/MAIS Code: N/A

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
Total:	Quantity	76	28	48	-	48	18	4	4	4
Secondary Distribution	Total Obligation Authority	8.333	14.814	22.216	-	22.216	11.490	5.095	5.095	5.873

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity:
2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 60: Generators

P-1 Line Item Number / Title:
9012R42501 / Tactical Electric Power Recapitalization

ID Code (A=Service Ready, B=Not Service Ready): **Program Elements for Code B Items:** N/A **Other Related Program Elements:** N/A

Line Item MDAP/MAIS Code: N/A

Exhibits Schedule					Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-5	R42511 / RECAP of DPGDS (840k)	P-5a, P-21			149 / 29.681	76 / 8.333	28 / 14.814	48 / 22.216	- / -	48 / 22.216
P-40	Total Gross/Weapon System Cost				149 / 29.681	76 / 8.333	28 / 14.814	48 / 22.216	- / -	48 / 22.216

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

Justification:

FY 2021 Base procurement dollars in the amount of \$22.216 million supports the continuation of the DPGDS PU Recapitalization production. FY19 quantity on P40 should reflect 0.

Power Units supporting the AM TPY-2 Forward-Based Mode (FBM) radar sites are at or are quickly approaching overhaul thresholds-taxing the 249th EN BN to complete/manage repairs and increasing the urgency of the recap effort

Once fielded, the MEP-PU-810C/D will be the center of the U.S. Army's Deployable Power Generation & Distribution System (DPGDS). The system enables the U.S. Army Corps of Engineer's support to the National Resource Framework (NRF) for Disaster Relief and contingency operations.

This program extends the service life, stabilizes the rate of the growth of operating and support costs, improves reliability, maintainability, availability safety and the efficiency of the existing fleet. Subsequently, the RECAP leverages the tremendous advancement in technology and will consist primarily of integrating readily available, commercially proven components into an existing ruggedized package.

Large production peak in FY21 to field assets to the FBM sites quickly as legacy assets quickly approach overhaul requirements (13,000 engine hours). FBM assets are critical to the nation's Ballistic Missile Defense System (BMDS)..

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army											Date: February 2020							
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 60				P-1 Line Item Number / Title: 9012R42501 / Tactical Electric Power Recapitalization							Item Number / Title [DODIC]: R42511 / RECAP of DPGDS (840k)							
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:											
Resource Summary				Prior Years		FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO		FY 2021 Total	
Procurement Quantity (Units in Each)				149		76			28			48			-		48	
Gross/Weapon System Cost (\$ in Millions)				29.681		8.333			14.814			22.216			-		22.216	
Less PY Advance Procurement (\$ in Millions)				-		-			-			-			-		-	
Net Procurement (P-1) (\$ in Millions)				29.681		8.333			14.814			22.216			-		22.216	
Plus CY Advance Procurement (\$ in Millions)				-		-			-			-			-		-	
Total Obligation Authority (\$ in Millions)				29.681		8.333			14.814			22.216			-		22.216	
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>																		
Initial Spares (\$ in Millions)				-		-			-			-			-		-	
Gross/Weapon System Unit Cost (\$ in Thousands)				199.201		109.645			529.071			462.833			-		462.833	

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
Flyaway Cost																		
Recurring Cost																		
Engineering Support	-	-	6.952	-	-	0.731	-	-	0.533	-	-	0.590	-	-	-	-	-	0.590
Engineering Change Orders	-	-	1.050	-	-	-	-	-	0.102	-	-	0.096	-	-	-	-	-	0.096
Testing	-	-	10.372	-	-	6.318	-	-	0.666	-	-	0.176	-	-	-	-	-	0.176
System Fielding Support	-	-	-	-	-	-	-	-	0.219	-	-	0.266	-	-	-	-	-	0.266
Logistics Support	-	-	5.528	-	-	-	-	-	0.533	-	-	0.325	-	-	-	-	-	0.325
Data	-	-	0.800	-	-	-	-	-	0.100	-	-	0.100	-	-	-	-	-	0.100
PM Management Support	-	-	4.218	-	-	1.284	-	-	0.633	-	-	0.855	-	-	-	-	-	0.855
System Assessment	-	-	-	-	-	-	-	-	0.420	-	-	0.200	-	-	-	-	-	0.200
<i>Subtotal: Recurring Cost</i>	-	-	28.920	-	-	8.333	-	-	3.206	-	-	2.608	-	-	-	-	-	2.608
<i>Subtotal: Flyaway Cost</i>	-	-	28.920	-	-	8.333	-	-	3.206	-	-	2.608	-	-	-	-	-	2.608
Hardware Cost																		
Recurring Cost																		
GENERATOR SET: DIESEL ENGINE MEP-810C ^(f)	365.000	1	0.365	-	-	-	400.000	4	1.600	400.000	24	9.600	-	-	-	400.000	24	9.600
GENERATOR SET: DIESEL ENGINE MEP-810D ^(f)	396.000	1	0.396	-	-	-	417.000	24	10.008	417.000	24	10.008	-	-	-	417.000	24	10.008
<i>Subtotal: Recurring Cost</i>	-	-	0.761	-	-	-	-	-	11.608	-	-	19.608	-	-	-	-	-	19.608

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army												Date: February 2020					
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 60						P-1 Line Item Number / Title: 9012R42501 / Tactical Electric Power Recapitalization						Item Number / Title [DODIC]: R42511 / RECAP of DPGDS (840k)					
ID Code (A=Service Ready, B=Not Service Ready) :												MDAP/MAIS Code:					

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
<i>Subtotal: Hardware Cost</i>	-	-	0.761	-	-	-	-	-	11.608	-	-	19.608	-	-	-	-	-	19.608
Gross/Weapon System Cost	199.201	149	29.681	109.645	76	8.333	529.071	28	14.814	462.833	48	22.216	-	-	-	462.833	48	22.216

Remarks:
 FY21 funds will go in support of:
 MEP-PU-810 C/D Production
 MEP-PU-810 C/D Fielding/Training
 MEP-PU-810 C/D Spare Parts Buy

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Army	Quantity	76	28	48	-	48
	Total Obligation Authority	8.333	14.814	22.216	-	22.216
Total: Secondary Distribution	Quantity	76	28	48	-	48
	Total Obligation Authority	8.333	14.814	22.216	-	22.216

(t) indicates the presence of a P-5a

UNCLASSIFIED

Exhibit P-5a, Procurement History and Planning: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 60	P-1 Line Item Number / Title: 9012R42501 / Tactical Electric Power Recapitalization	Item Number / Title [DODIC]: R42511 / RECAP of DPGDS (840k)
----------------------------------------------------------------------------------	-----------------------------------------------------------------------------------------------	-----------------------------------------------------------------------

Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty <i>(Each)</i>	Unit Cost <i>(\$ K)</i>	Specs Avail Now?	Date Revision Available	RFP Issue Date
GENERATOR SET: DIESEL ENGINE MEP-810C ^(†)		2020	PD Systems / Springfield, VA	C / FFP	ACC-APG Fort Belvoir	Jun 2020	Jan 2021	4	400.000	Y		
GENERATOR SET: DIESEL ENGINE MEP-810C ^(†)		2021	PD Systems / Springfield, VA	C / FFP	ACC-APG Fort Belvoir	Jan 2021	Jul 2021	24	400.000	Y		
GENERATOR SET: DIESEL ENGINE MEP-810D ^(†)		2020	PD Systems / Springfield, VA	C / FFP	ACC-APG Fort Belvoir	Jun 2020	Jan 2021	24	417.000	Y		
GENERATOR SET: DIESEL ENGINE MEP-810D ^(†)		2021	PD Systems / Springfield, VA	C / FFP	ACC-APG Fort Belvoir	Jan 2021	Jul 2021	24	417.000	Y		

^(†) indicates the presence of a P-21

Remarks:

All production rates shown on a yearly basis. Manufacturer has multiple products that contribute to the minimum production rate.

"A" in the Delivery Schedule indicates the Contract Award Date.

Note: Due to space limitations, quantities in the Exhibit P-21 delivery calendar are truncated and rounded based on the maximum quantity in the calendar as follows. If the maximum quantity is less than or equal to than 9,999, all quantities are shown as each. If the maximum quantity is between 10,000 and 999,999 all quantities are shown in thousands. If the maximum quantity is between 1,000,000 and 999,999,999 all quantities are shown in millions (rounded to the nearest thousand). If the maximum quantity is equal or greater than 1,000,000,000 all quantities are shown in billions (rounded to the nearest million).

UNCLASSIFIED

Exhibit P-21, Production Schedule: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 60 **P-1 Line Item Number / Title:** 9012R42501 / Tactical Electric Power Recapitalization **Item Number / Title [DODIC]:** R42511 / RECAP of DPGDS (840k)

Cost Elements <i>(Units in Each)</i>						Fiscal Year 2020												Fiscal Year 2021												BALANCE	
O C C #	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2019	BAL DUE AS OF 1 OCT	Calendar Year 2020												Calendar Year 2021												
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G		S E P
GENERATOR SET: DIESEL ENGINE MEP-810C																															
Prior Years Deliveries: 1																															
	1	2020	ARMY	4	0	4																								0	
	1	2021	ARMY	24	0	24																								18	
GENERATOR SET: DIESEL ENGINE MEP-810D																															
Prior Years Deliveries: 1																															
	2	2020	ARMY	24	0	24																								0	
	2	2021	ARMY	24	0	24																								18	
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	

UNCLASSIFIED

Exhibit P-21, Production Schedule: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 60 **P-1 Line Item Number / Title:** 9012R42501 / Tactical Electric Power Recapitalization **Item Number / Title [DODIC]:** R42511 / RECAP of DPGDS (840k)

Cost Elements <i>(Units in Each)</i>						Fiscal Year 2022														Fiscal Year 2023														BALANCE	
O C C #	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2021	BAL DUE AS OF 1 OCT	Calendar Year 2022														Calendar Year 2023														
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P					
GENERATOR SET: DIESEL ENGINE MEP-810C																																			
Prior Years Deliveries: 1																																			
	1	2020	ARMY	4	4	0																							0						
	1	2021	ARMY	24	6	18	2	2	2	2	2	2	2	2	2	2													0						
GENERATOR SET: DIESEL ENGINE MEP-810D																																			
Prior Years Deliveries: 1																																			
	2	2020	ARMY	24	24	0																							0						
	2	2021	ARMY	24	6	18	2	2	2	2	2	2	2	2	2	2													0						
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P					

UNCLASSIFIED

Exhibit P-21, Production Schedule: PB 2021 Army	Date: February 2020
--------------------------------------------------------	----------------------------

Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 60	P-1 Line Item Number / Title: 9012R42501 / Tactical Electric Power Recapitalization	Item Number / Title [DODIC]: R42511 / RECAP of DPGDS (840k)
----------------------------------------------------------------------------------	-----------------------------------------------------------------------------------------------	-----------------------------------------------------------------------

MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Year)			Procurement Leadtime (Months)							
		MSR For 2021	1-8-5 For 2021	MAX For 2021	Initial				Reorder			
					ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1	ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1
1	PD Systems - Springfield,VA	48	72	96	6	8	5	13	0	0	0	0
2	PD Systems - Springfield,VA	48	72	96	6	8	5	13	0	0	0	0

Remarks:
 MEP- PU-810 A/B continue to experience parts obsolescence issues and sustainment challenges. Currently, there is no depot capability. Completion of FAT will be reached in FY21.

"A" in the Delivery Schedule indicates the Contract Award Date.

Note: Due to space limitations, quantities in the Exhibit P-21 delivery calendar are truncated and rounded based on the maximum quantity in the calendar as follows. If the maximum quantity is less than or equal to than 9,999, all quantities are shown as each. If the maximum quantity is between 10,000 and 999,999 all quantities are shown in thousands. If the maximum quantity is between 1,000,000 and 999,999,999 all quantities are shown in millions (rounded to the nearest thousand).If the maximum quantity is equal or greater than 1,000,000,000 all quantities are shown in billions (rounded to the nearest million).

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 65: Material Handling Equipment	P-1 Line Item Number / Title: 5558G41001 / Family Of Forklifts
---------------------------------------------------------------------------------------------------------------------------------------------------------------------------	--------------------------------------------------------------------------

ID Code (A=Service Ready, B=Not Service Ready):	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
--------------------------------------------------------	-----------------------------------------------	--------------------------------------------

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	92	137	168	142	20	162	129	139	116	116	-	1,059
Gross/Weapon System Cost (<i>\$ in Millions</i>)	91.646	12.901	19.016	16.145	1.885	18.030	14.440	14.737	12.663	12.657	-	196.090
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	91.646	12.901	19.016	16.145	1.885	18.030	14.440	14.737	12.663	12.657	-	196.090
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	91.646	12.901	19.016	16.145	1.885	18.030	14.440	14.737	12.663	12.657	-	196.090

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Thousands</i>)	996.152	94.168	113.190	113.697	94.250	111.296	111.938	106.022	109.164	109.112	-	185.165

Description:

The Family of Forklifts supports various combat, combat support, and combat service support units in the loading and unloading of palletized supplies. Currently, the forklift family consists of the 5K Light Capability Rough Terrain Forklift (LCRTF) and the All-Terrain Lifter, Army System (ATLAS).

The 5K LCRTF supports Large Scale Combat Operations (LSCO) Gaps: 10 Tactical and Sustainment Mobility and 17 Division Materiel Management or Higher Echelon Maintenance by being the only rugged 5K forklift in the U.S. Army's inventory which can rapidly enter, pack, and unpack ISO containers, load and unload tactical vehicles and trailers, and lift and move light equipment and cargo. The LCRTF enables Maneuver, Maneuver Support, and Sustainment Units with the capabilities necessary to handle, transport, and stack materials. The LCRTF is required to clear landing zones of supplies and equipment, load and unload combat vehicles and aircraft as well as moving some artillery assets and supplies. The 5K LCRTF mission profile is 20 hours of operations in all types of environmental conditions. The 5K LCRTF system is a Critical Dual Use (CDU) system enabling and supporting Defense Support to Civil Authorities (DSCA) operations (i.e. Disaster Relief). It can be transported by C-130 aircraft and external sling load via CH47D helicopter. LCRTF is Low Velocity Air Drop (LVAD) capable. The 5K LCRT Forklift Army Acquisition Objective (AAO): 2,912 Systems. The minimum sustainment rate is 15 systems per month.

The All-Terrain Lifter, Army System (ATLAS) is a family of, C-130 airplane transportable 10,000 Pound (LB) capacity variable reach rough terrain forklifts. The ATLAS primary missions include handling all classes of supply, load and unload standard Army pallets in ISO containers, handling break-bulk cargo and loads weighing up to 10,000 LBS on Air Force 463L pallets. It is a key component to the Army's Container Oriented Distribution System which is essential to the deployment of an Expeditionary Army and sustainment of a deployed force. The ATLAS forklift mobility capabilities support all the Army's Brigade Combat Teams and units from seven branches (Transportation, Quartermaster, Ordnance, Missile & Munitions, Engineer, Aviation and Medical). Crew survivability is being addressed in accordance with the Army's Long Term Armor Strategy (ALTAS). The ATLAS is a military unique vehicle. It operates in all terrains, has cross country mobility and road speed of 23 Miles per Hour (MPH). Commercial forklifts cannot meet the military requirements nor the Key Performance Parameters (KPP) identified in the ATLAS requirements document. The ATLAS is capable of performing all mission requirements and meets EPA Tier III emissions requirements, with increased reliability and survivability. The ATLAS system is a CDU system enabling and supporting DSCA operations (i.e. Disaster Relief). The ATLAS AAO is: 4,645. The Army has procured 4,399 Systems.

Secondary Distribution	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
Army									
Quantity	56	74	63	20	83	56	60	48	48
Total Obligation Authority	4.744	8.934	6.600	1.885	8.485	6.587	6.298	5.316	5.310

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 65: Material Handling Equipment	P-1 Line Item Number / Title: 5558G41001 / Family Of Forklifts
---------------------------------------------------------------------------------------------------------------------------------------------------------------------------	--------------------------------------------------------------------------

ID Code (A=Service Ready, B=Not Service Ready):	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
--------------------------------------------------------	-----------------------------------------------	--------------------------------------------

Line Item MDAP/MAIS Code: N/A

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
ANG	Quantity	22	40	31	-	31	30	32	27	27
	Total Obligation Authority	2.126	4.078	3.954	-	3.954	3.192	3.426	2.958	2.958
AR	Quantity	59	54	48	-	48	43	47	41	41
	Total Obligation Authority	6.031	6.004	5.591	-	5.591	4.661	5.013	4.389	4.389
Total:	Quantity	137	168	142	20	162	129	139	116	116
Secondary Distribution	Total Obligation Authority	12.901	19.016	16.145	1.885	18.030	14.440	14.737	12.663	12.657

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 65: Material Handling Equipment **P-1 Line Item Number / Title:** 5558G41001 / Family Of Forklifts

ID Code (A=Service Ready, B=Not Service Ready): **Program Elements for Code B Items:** N/A **Other Related Program Elements:** N/A

Line Item MDAP/MAIS Code: N/A

Exhibits Schedule					Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-5	G41002 / 5K LIGHT CAPABILITY ROUGH TERRAIN (LCRT) FORKLIFT	P-5a, P-21	A		92 / 91.646	137 / 12.901	168 / 19.016	142 / 16.145	20 / 1.885	162 / 18.030
P-40	Total Gross/Weapon System Cost				92 / 91.646	137 / 12.901	168 / 19.016	142 / 16.145	20 / 1.885	162 / 18.030

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

Justification:
 FY 2021 Base procurement dollars in the amount of \$16.145 million will procure 142 Light Capability Rough Terrain Forklift (LCRTF) systems, fund engineering change proposals for fan shroud and lighting updates, program support, and fielding costs.

 FY 2021 Base procurement dollars in the amount of \$1.885 million will procure 20 Light Capability Rough Terrain Forklift (LCRTF) systems, fund engineering change proposals for fan shroud and lighting updates, and fielding costs in support of Operation Freedom Sentinel Operation Spartan Shield.

 Note: FY 2019 quantity of 137 is incorrect due to systematic error. The correct quantity of 131 in the P5, P5a, and P21 reflects actual systems procured. FY 2020 quantity of 168 is incorrect due to systematic errors. The correct quantity of 195 reflects true programmatic planning.

 In FY 2021, \$0.178 million in Reimbursable Manpower has been realigned from Reimbursable Civilian Funding to Direct Operations and Maintenance. Program support costs have been accurately updated to reflect the realignments.

 In accordance with Section 1815 of the FY 2008 National Defense Authorization Act (P.L. 110-181), this item is necessary for use by the Active and Reserve Components of the Armed Forces for homeland defense missions, domestic emergency responses, and providing military support to civil authorities.

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 65		P-1 Line Item Number / Title: 5558G41001 / Family Of Forklifts
		Item Number / Title [DODIC]: G41002 / 5K LIGHT CAPABILITY ROUGH TERRAIN (LCRT) FORKLIFT

ID Code (A=Service Ready, B=Not Service Ready) : A	MDAP/MAIS Code:
-----------------------------------------------------------	------------------------

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Procurement Quantity (Units in Each)	92	137	168	142	20	162
Gross/Weapon System Cost (\$ in Millions)	91.646	12.901	19.016	16.145	1.885	18.030
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	91.646	12.901	19.016	16.145	1.885	18.030
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	91.646	12.901	19.016	16.145	1.885	18.030

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (\$ in Millions)	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Thousands)	996.152	94.168	113.190	113.697	94.250	111.296

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
Flyaway Cost																		
Recurring Cost																		
Hardware ^(†)	65.030	1,382	89.871	75.137	131	9.843	79.138	195	15.432	82.317	142	11.689	82.300	20	1.646	82.315	162	13.335
System Engineering/ Program Management	-	-	0.582	-	-	0.657	-	-	0.219	-	-	0.851	-	-	-	-	-	0.851
System Test and Evaluation, Production	-	-	0.300	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Data	-	-	-	-	-	0.587	-	-	0.481	-	-	0.453	-	-	0.001	-	-	0.454
Support Equipment	-	-	-	7.273	44	0.320	7.924	79	0.626	10.500	56	0.588	16.333	6	0.098	11.065	62	0.686
Fielding	-	-	0.788	-	-	0.517	-	-	0.819	-	-	2.564	-	-	0.140	-	-	2.704
Engineering Changes	-	-	0.105	-	-	0.060	-	-	-	-	-	-	-	-	-	-	-	-
Fielding - Transportation FDT	-	-	-	-	-	0.917	-	-	1.439	-	-	-	-	-	-	-	-	-
<i>Subtotal: Recurring Cost</i>	-	-	91.646	-	-	12.901	-	-	19.016	-	-	16.145	-	-	1.885	-	-	18.030
<i>Subtotal: Flyaway Cost</i>	-	-	91.646	-	-	12.901	-	-	19.016	-	-	16.145	-	-	1.885	-	-	18.030
Gross/Weapon System Cost	996.152	92	91.646	94.168	137	12.901	113.190	168	19.016	113.697	142	16.145	94.250	20	1.885	111.296	162	18.030

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Army	Quantity	56	74	63	20	83
	Total Obligation Authority	4.744	8.934	6.600	1.885	8.485

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 65	P-1 Line Item Number / Title: 5558G41001 / Family Of Forklifts	Item Number / Title [DODIC]: G41002 / 5K LIGHT CAPABILITY ROUGH TERRAIN (LCRT) FORKLIFT

ID Code (A=Service Ready, B=Not Service Ready) : A **MDAP/MAIS Code:**

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
ANG	Quantity	22	40	31	-	31
	Total Obligation Authority	2.126	4.078	3.954	-	3.954
AR	Quantity	59	54	48	-	48
	Total Obligation Authority	6.031	6.004	5.591	-	5.591
Total:	Quantity	137	168	142	20	162
Secondary Distribution	Total Obligation Authority	12.901	19.016	16.145	1.885	18.030

(†) indicates the presence of a P-5a

UNCLASSIFIED

Exhibit P-5a, Procurement History and Planning: PB 2021 Army							Date: February 2020				
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 65			P-1 Line Item Number / Title: 5558G41001 / Family Of Forklifts				Item Number / Title [DODIC]: G41002 / 5K LIGHT CAPABILITY ROUGH TERRAIN (LCRT) FORKLIFT				

Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty <i>(Each)</i>	Unit Cost <i>(\$ K)</i>	Specs Avail Now?	Date Revision Available	RFP Issue Date
Hardware ^(†)		2019	JCB Inc. / Pooler, GA	C / FFP	TACOM	Mar 2019	Oct 2020	131	75.137	N		
Hardware ^(†)		2020	JCB Inc. / Pooler, GA	C / FFP	TACOM	Dec 2019	Jul 2021	195	79.138	N		
Hardware ^(†)		2021	JCB Inc. / Pooler, GA	C / FFP	TACOM	Nov 2020	Aug 2022	142	82.317	N		
Hardware ^(†)	✓	2021	JCB Inc. / Pooler, GA	C / FFP	TACOM	Nov 2020	May 2023	20	82.300	N		

^(†) indicates the presence of a P-21

UNCLASSIFIED

Exhibit P-21, Production Schedule: PB 2021 Army												Date: February 2020											
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 65						P-1 Line Item Number / Title: 5558G41001 / Family Of Forklifts						Item Number / Title [DODIC]: G41002 / 5K LIGHT CAPABILITY ROUGH TERRAIN (LCRT) FORKLIFT											

Cost Elements (Units in Each)					Fiscal Year 2019												Fiscal Year 2020												B A L A N C E		
O C C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2018	BAL DUE AS OF 1 OCT	Calendar Year 2019												Calendar Year 2020												
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L		A U G	S E P
Hardware																															
Prior Years Deliveries: 1382																															
	1	2019	ARMY	131	0	131																									131
	1	2020	ARMY	195	0	195																								195	
	1	2021	ARMY	142	0	142																								142	
✓	1	2021	ARMY	20	0	20																								20	

O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P
-------------	-------------	-------------	-------------	-------------	-------------	-------------	-------------	-------------	-------------	-------------	-------------	-------------	-------------	-------------	-------------	-------------	-------------	-------------	-------------	-------------	-------------	-------------	-------------

UNCLASSIFIED

Exhibit P-21, Production Schedule: PB 2021 Army															Date: February 2020														
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 65										P-1 Line Item Number / Title: 5558G41001 / Family Of Forklifts										Item Number / Title [DODIC]: G41002 / 5K LIGHT CAPABILITY ROUGH TERRAIN (LCRT) FORKLIFT									

Cost Elements <i>(Units in Each)</i>					Fiscal Year 2021												Fiscal Year 2022												B A L A N C E		
O C C O	M F R #	FY	SERVICE	PROC QTY	ACCEP T P R I O R T O 1 O C T 2 0 2 0	BAL D U E A S O F 1 O C T	Calendar Year 2021												Calendar Year 2022												
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L		A U G	S E P
Hardware																															
Prior Years Deliveries: 1382																															
	1	2019	ARMY	131	0	131	6	15	15	15	15	15	15	15	15	15	5													0	
	1	2020	ARMY	195	0	195	-	-	-	-	-	-	-	-	-	-	10	15	15	15	15	15	15	15	15	15	15	15	5	0	
	1	2021	ARMY	142	0	142		A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10	15	117	
✓	1	2021	ARMY	20	0	20		A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	20		
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	

UNCLASSIFIED

Exhibit P-21, Production Schedule: PB 2021 Army															Date: February 2020														
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 65										P-1 Line Item Number / Title: 5558G41001 / Family Of Forklifts										Item Number / Title [DODIC]: G41002 / 5K LIGHT CAPABILITY ROUGH TERRAIN (LCRT) FORKLIFT									

Cost Elements <i>(Units in Each)</i>						Fiscal Year 2023												Fiscal Year 2024												BALANCE	
O C C #	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2022	BAL DUE AS OF 1 OCT	Calendar Year 2023												Calendar Year 2024												
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G		S E P
Hardware																															
Prior Years Deliveries: 1382																															
	1	2019	ARMY	131	131	0																							0		
	1	2020	ARMY	195	195	0																							0		
	1	2021	ARMY	142	25	117	15	15	15	15	15	15	15	12															0		
✓	1	2021	ARMY	20	0	20	-	-	-	-	-	-	-	3	15	2													0		
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	

UNCLASSIFIED

Exhibit P-21, Production Schedule: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 65		P-1 Line Item Number / Title: 5558G41001 / Family Of Forklifts
Item Number / Title [DODIC]: G41002 / 5K LIGHT CAPABILITY ROUGH TERRAIN (LCRT) FORKLIFT		

MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Month)			Procurement Leadtime (Months)							
		MSR For 2021	1-8-5 For 2021	MAX For 2021	Initial				Reorder			
					ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1	ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1
1	JCB Inc. - Pooler, GA	15	17	50	0	3	6	9	0	1	6	7

"A" in the Delivery Schedule indicates the Contract Award Date.
Note: Due to space limitations, quantities in the Exhibit P-21 delivery calendar are truncated and rounded based on the maximum quantity in the calendar as follows. If the maximum quantity is less than or equal to than 9,999, all quantities are shown as each. If the maximum quantity is between 10,000 and 999,999 all quantities are shown in thousands. If the maximum quantity is between 1,000,000 and 999,999,999 all quantities are shown in millions (rounded to the nearest thousand). If the maximum quantity is equal or greater than 1,000,000,000 all quantities are shown in billions (rounded to the nearest million).

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 70: Training Equipment	P-1 Line Item Number / Title: 1780MA6600 / Combat Training Centers Support
---------------------------------------------------------------------------------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------

ID Code (A=Service Ready, B=Not Service Ready):	Program Elements for Code B Items: N/A	Other Related Program Elements: 0604715A
--------------------------------------------------------	-----------------------------------------------	-------------------------------------------------

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	2,156	687	754	163	-	163	27	8	60	59	Continuing	Continuing
Gross/Weapon System Cost (<i>\$ in Millions</i>)	1,701.481	117.584	123.411	90.580	-	90.580	78.424	75.501	72.046	80.319	Continuing	Continuing
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	1,701.481	117.584	123.411	90.580	-	90.580	78.424	75.501	72.046	80.319	Continuing	Continuing
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	1,701.481	117.584	123.411	90.580	-	90.580	78.424	75.501	72.046	80.319	Continuing	Continuing

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Thousands</i>)	789.184	171.156	163.675	555.706	-	555.706	2,904.593	9,437.625	1,200.767	1,361.339	Continuing	Continuing

Description:

The Combat Training Centers (CTCs) are the Army's premiere collective training centers. The CTCs provide high-fidelity Live, Virtual and Constructive (LVC) Brigade training rotations which prepare Brigade Combat Teams, Joint partners, and supporting units to deploy in support of the Army's Sustainable Readiness Model (SRM). The CTC program supports the National Training Center (NTC), the Joint Readiness Training Center (JRTC), and the Joint Multinational Readiness Center (JMRC). The CTCs primary goal is to develop agile and adaptive leaders at the tactical, operational and strategic levels while providing BCTs the core training necessary to conduct decisive action in a dynamic operating environment.

The Combat Training Center Instrumentation System (CTC-IS) is a communications, analysis and feedback system that provides a realistic operational environment for training the Brigade Combat Team (BCT) and below in preparation for deployment to conduct Unified Land Operations (ULO). It is comprised of voice, video, and data instrumentation subsystem networks that include software, hardware, work stations, base-station equipment, communications infrastructure, voice radios, data devices, and interfaces. The Instrumentation System provides the Combat Trainer (CT) critical situational awareness for training safety, analysis, and feedback capabilities to conduct After Action Reviews (AARs).

The Combat Training Center LIVE FIRE Modernization (CTC LIVE FIRE MOD) provides Future Army System of Integrated Targets (FASIT) qualified live-fire capable targets: stationary armor targets (SAT) with accompanying battlefield effects simulators (BES); stationary infantry targets (SIT); human urban targets (HUT); double-arm SIT's; moving infantry targets (MIT); and non-FASIT qualified Aviation 3-D and Unattended Aerial Systems (UAS) targets which provide a capability for the CTCs to support the transition from Mission Rehearsal Exercise/Situational Training Exercise (MRE/ST) rotations to Unified Land Operations (ULO) against a hybrid threat.

Training Aircraft Survivability Equipment (ASE) Stimulation Suite (TASS) is a live training system consisting of aircraft components and ground emitters that replicate current and emerging enemy Air Defense systems. Its fidelity supports individual pilot training as well as the collective training requirements of the Brigade Combat Team (BCT) to fully plan, prepare, execute and react against an enemy air defense weapons at the Combat Training Centers (CTC). The Integrated Air Defense System Radar Signal Emulator (RSE) replicates an enemy multi-layered, short range, medium and high altitude air-defense system to execute unified land operations against the current or projected threat.

Opposing Forces (OPFOR) Surrogate Vehicles (OSV) Tank Thermal Sights (TTS) replaces obsolete and unsustainable M60 TTSs at the Combat Training Centers (CTCs). The existing sights are causing operational issues specifically at NTC where approximately half of their fleet has non-functional TTSs. With the current Operational Environment, US Army units must train against forces that have near peer capabilities which the current TTS system does not meet. This program will provide a near peer TTS that is common to today's M1 Abrams Tanks and M2 Bradley's (Block 1 Version 2nd Generation Forwarding Looking Infrared (FLIR)) which will allow the CTCs' OPFOR to fight safely at night.

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 70: Training Equipment		P-1 Line Item Number / Title: 1780MA6600 / Combat Training Centers Support
ID Code (A=Service Ready, B=Not Service Ready):	Program Elements for Code B Items: N/A	Other Related Program Elements: 0604715A
Line Item MDAP/MAIS Code: N/A		

The Opposing Forces (OPFOR) Vehicles program consists of two variants, the Opposing Forces Surrogate Training System Main Battle Tank (OSTS-MBT) and the Opposing Surrogate Vehicle. They are used in force on force training as the OPFOR in active battle scenarios. Both vehicles are based on the M113 platform with an added turret and other modifications for opposing force visual recognition; to look like an opposing force combat vehicle.

The OPFOR Surrogate Wheeled Vehicles (OSWV) program procures technical wheeled vehicles, unique Visual Modifications (VISMODs), and Civilian on the Battlefield Vehicles (COBVs). This capability provides for a more realistic replication of OPFOR and Civilians on the Battlefield (COB) vehicle environment that rotational units must train against.

Independent Commercially Compatible Cellular Network System (IC3NS) provides a closed loop, commercially available cell phone communications infrastructure at the Maneuver Combat Training Centers (CTCs) that portrays the OPFOR cellular telephone network portion of the Operating Environment to allow BCTs to train on exploit/defeat the network tasks.

The Cyber Operations systems represents a peer threat Offensive Cyber capability in a collective training environment. The Cyber Operations systems require the ability to replicate the complexities of the World Wide Web and the information domain of the Operational Environment. The Electronic Warfare (EW), Cyber, and Space Operations systems shall be able to operate within the designated geographic and electromagnetic spectrum confines of the respective training center. The EW, Cyber, and Space Operations systems shall create a threat environment which requires the Rotational Training Unit (RTU) to identify situations which require external (higher headquarters or supporting agency) support to mitigate the threat or to seize opportunity in the EMS Operational Environment (OE). The EW/Space Operations systems require the ability to replicate competitive threat signatures to enable the RTU to execute Mission Command, Movement and Maneuver, Intelligence, Fires, Sustainment, and Protection operations to identify and mitigate the threat.

The Opposing Forces (OPFOR) Attack Aircraft Shoot-back Capability (OA2SBC) program procures and installs instrumentation capabilities on the Light Utility Helicopter (LUH) and for the Instrumentation System (IS) to track newly fielded Light Utility Helicopters (LUH) performing Observer/Controller (OC) and Opposing Forces (OPFOR) roles at the three CTCs. The CTC Aviation program provides the capabilities to communicate with LUH organic onboard radios via the CTC ground-based Observer Controller Communications Systems (OCCS). The OPFOR capability provides a high-fidelity threat to the BLUFOR in training at the CTCs and the OC capability provides and aids the control of the CTC exercises to ultimately achieve the objective of improved and sustained readiness of the force.

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
Army	Quantity	687	754	163	-	163	27	8	60	59
	Total Obligation Authority	117.584	123.411	90.580	-	90.580	78.424	75.501	72.046	80.319
Total: Secondary Distribution	Quantity	687	754	163	-	163	27	8	60	59
	Total Obligation Authority	117.584	123.411	90.580	-	90.580	78.424	75.501	72.046	80.319

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity:
2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 70: Training Equipment

P-1 Line Item Number / Title:
1780MA6600 / Combat Training Centers Support

ID Code (A=Service Ready, B=Not Service Ready): **Program Elements for Code B Items:** N/A **Other Related Program Elements:** 0604715A

Line Item MDAP/MAIS Code: N/A

Exhibits Schedule					Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-5	MA6601 / Combat Training Centers (CTC) Support	P-5a, P-21			2,156 / 1,701.481	687 / 117.584	754 / 123.411	163 / 90.580	- / -	163 / 90.580
P-40	Total Gross/Weapon System Cost				2,156 / 1,701.481	687 / 117.584	754 / 123.411	163 / 90.580	- / -	163 / 90.580

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

Justification:

FY 2021 Base procurement dollars in the amount of \$90.580 million supports the following efforts:

FY 2021 Combat Training Center Instrumentation System (CTC-IS) Base procurement dollars in the amount of \$37.559 million procures essential lifecycle activities on the existing subsystems of the fielded Instrumentation Systems located at the National Training Center (NTC), JRTC, and JMRC. These essential lifecycle activities consist of Information Technology (IT) Hardware Replacement, Continuous Technology Refresh (CTR), and Post Deployment Software Support (PDSS) to ensure that the Instrumentation System subsystems do not become obsolete and that there is a continuing evolution of system capability over the lifecycle of the Instrumentation Systems at the three Combat Training Centers.

FY 2021 OPFOR Integrated Air Defense System (IADS) Base procurement dollars in the amount of \$9.060 million procures VISMOS for the CTCs, interim contractor support, new equipment training, and CH-47 kits in support of opposing threat training at the National Training Center, Joint Readiness Training Center and the Joint Multinational Readiness Center.

FY 2021 IADS Radar Signal Emitter (RSE) base procurement dollars in the amount of \$6.815 million procures one complete IADS-RSE system and provides the initial funding for CTC integration. The IADS-RSE System consist of an Array Module with Target Acquisition Radar (TAR), Target Engagement Radar (TER) facade, Power Generation System (PGS), and Thermal Management System (TMS).

FY 2021 OPFOR Surrogate Wheeled Vehicles (OSWV) program Base procurement dollars in the amount of \$24.485 million procures 69 Technical wheeled vehicles, 88 tactical vehicle VISMOS for NTC and JRTC, and thermal sight units.

FY 2021 Independent Commercially Compatible Cellular Network System (IC3NS) base procurement dollars in the amount of \$3.038 million will be used to procure cellular network equipment to expand IC3NS coverage at the National Training Center (NTC) and Joint Readiness Training Center (JRTC). Additionally, the funds will cover the engineering support, maintenance, licensing costs, and service level agreements (SLAs) for the IC3NS program.

FY 2021 base procurement dollars for EW/Space/Cyber in the amount of \$9.154 million procures and integrates IT equipment in support of the Cyber Environment Replication (CER) program. This program serves to refresh existing cyber infrastructure currently used at JRTC, NTC, and JMRC.

FY 2021 Opposing Forces (OPFOR) Attack Aircraft Shoot-back Capability (OA2SBC) base procurement dollars in the amount of \$0.469 million provides for continuous technology refresh that allows OPFOR aircraft to engage other air and ground TESS-equipped targets, and display engagement pairings on CTC-IS workstations.

In FY 2021, Combat Training Center Live Fire Modernization (CTC Live Fire Mod) was moved from SSN MA6601 to NA0105 - Ranges and Targets. On 21 April 2019, the Future Army System of Integrated Targets (FASIT) Capability Production Document was approved. After the FASIT program is formally established, it will subsume the following programs: Combat Training Center Live Fire Modernization (CTC Live Fire Mod), Target Modernization, and Army Targetry Systems (ATS).

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 70: Training Equipment		P-1 Line Item Number / Title: 1780MA6600 / Combat Training Centers Support
ID Code (A=Service Ready, B=Not Service Ready):	Program Elements for Code B Items: N/A	Other Related Program Elements: 0604715A
Line Item MDAP/MAIS Code: N/A		
FY 2021 Base procurement dollars procure training devices and systems in support of U.S. Army Readiness to support a balanced investment strategy for the Army's approved force structure and the Army's Sustainable Readiness Model (SRM).		

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 70	P-1 Line Item Number / Title: 1780MA6600 / Combat Training Centers Support	Item Number / Title [DODIC]: MA6601 / Combat Training Centers (CTC) Support

ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:
---------------------------------------------------------	------------------------

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Procurement Quantity (Units in Each)	2,156	687	754	163	-	163
Gross/Weapon System Cost (\$ in Millions)	1,701.481	117.584	123.411	90.580	-	90.580
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	1,701.481	117.584	123.411	90.580	-	90.580
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	1,701.481	117.584	123.411	90.580	-	90.580

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (\$ in Millions)	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Thousands)	789.184	171.156	163.675	555.706	-	555.706

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
Flyaway Cost																		
Recurring Cost																		
Combat Training Center Instrumentation System (CTC-IS) Modernization ^(†)	52,323.500	2	104.647	2,500.000	1	2.500	2,600.000	6	15.600	-	-	-	-	-	-	-	-	-
Combat Training Center Instrumentation System (CTC-IS) Essential Lifecycle Activities	-	-	1,406.560	-	-	29.560	-	-	28.817	-	-	27.818	-	-	-	-	-	27.818
CTC Aviation Shootback Kits	2,012.083	12	24.145	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CTC MOUT-IS Instrumentation	3,377.818	11	37.156	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CTC MOUT-IS Continuous Tech Refresh	-	-	5.931	-	-	11.074	-	-	7.008	-	-	-	-	-	-	-	-	-
CTC LIVE FIRE MOD Kits ^(†)	10.452	3,168	33.112	9.727	477	4.640	-	-	-	-	-	-	-	-	-	-	-	-
CTC LIVE FIRE MOD Stationary Infantry Targets (SIT) Kits ^(†)	-	-	-	-	-	-	8.970	642	5.759	-	-	-	-	-	-	-	-	-
CTC LIVE FIRE MOD Integration	-	-	-	-	-	-	-	-	1.781	-	-	-	-	-	-	-	-	-

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 70	P-1 Line Item Number / Title: 1780MA6600 / Combat Training Centers Support	Item Number / Title [DODIC]: MA6601 / Combat Training Centers (CTC) Support
ID Code (A=Service Ready, B=Not Service Ready) :		MDAP/MAIS Code:

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
OPFOR WEAPONS (MBT, OSV & SLM) kits	19.450	626	12.176	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
OPFOR Integrated Air Defense System (IADS) TASS ^(†)	66.667	30	2.000	67.955	22	1.495	-	-	-	-	-	2.950	-	-	-	-	-	2.950
OPFOR Integrated Air Defense System (IADS) TASS Initial Spares Package	-	-	-	-	-	-	-	-	2.540	-	-	-	-	-	-	-	-	-
OPFOR Integrated Air Defense System (IADS) TASS Mobile VISMOS	-	-	-	-	-	-	-	-	4.100	-	-	5.730	-	-	-	-	-	5.730
OPFOR Integrated Air Defense System (IADS) RSE ^(†)	-	-	-	-	-	-	6,862.500	2	13.725	6,815.000	1	6.815	-	-	-	6,815.000	1	6.815
Opposing Forces (OPFOR) Surrogate Vehicles (OSV) Tank Thermal Sights (TTS) ^(†)	155.061	82	12.715	175.526	156	27.382	272.864	22	6.003	-	-	-	-	-	-	-	-	-
Opposing Forces (OPFOR) Vehicles Conversion ^(†)	-	-	-	884.615	26	23.000	-	-	-	-	-	-	-	-	-	-	-	-
Opposing Forces (OPFOR) Surrogate Wheeled Vehicle (OSWV) Technical Vehicles ^(†)	-	-	-	-	-	-	50.000	34	1.700	50.000	69	3.450	-	-	-	50.000	69	3.450
Opposing Forces (OPFOR) Surrogate Wheeled Vehicle (OSWV) Visual Modifications ^(†)	-	-	-	-	-	-	206.186	43	8.866	206.000	88	18.128	-	-	-	206.000	88	18.128
Opposing Forces (OPFOR) Surrogate Wheeled Vehicle (OSWV) Thermal Sight Units	-	-	-	-	-	-	-	-	0.900	-	-	0.420	-	-	-	-	-	0.420
IC3NS HW Components ^(†)	-	-	-	2,241.000	2	4.482	1,621.000	2	3.242	1,519.000	2	3.038	-	-	-	1,519.000	2	3.038

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 70	P-1 Line Item Number / Title: 1780MA6600 / Combat Training Centers Support	Item Number / Title [DODIC]: MA6601 / Combat Training Centers (CTC) Support

ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:
---------------------------------------------------------	------------------------

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
EW/Space/Cyber ^(†)	-	-	-	600.000	3	1.800	3,818.000	3	11.454	3,051.333	3	9.154	-	-	-	3,051.333	3	9.154
OPFOR Attack Aircraft Shoot-back Capability (OA2SBC)	-	-	-	-	-	-	-	-	-	-	-	0.469	-	-	-	-	-	0.469
<i>Subtotal: Recurring Cost</i>	-	-	1,638.442	-	-	105.933	-	-	111.495	-	-	77.972	-	-	-	-	-	77.972
<i>Subtotal: Flyaway Cost</i>	-	-	1,638.442	-	-	105.933	-	-	111.495	-	-	77.972	-	-	-	-	-	77.972
Software Cost																		
Recurring Cost																		
Combat Training Center Instrumentation System (CTC-IS) Post Deployment Software Support	-	-	6.800	-	-	6.141	-	-	6.016	-	-	6.613	-	-	-	-	-	6.613
<i>Subtotal: Recurring Cost</i>	-	-	6.800	-	-	6.141	-	-	6.016	-	-	6.613	-	-	-	-	-	6.613
<i>Subtotal: Software Cost</i>	-	-	6.800	-	-	6.141	-	-	6.016	-	-	6.613	-	-	-	-	-	6.613
Logistics Cost																		
Recurring Cost																		
Opposing Forces (OPFOR) Surrogate Wheeled Vehicle (OSWV) Transportation	-	-	-	-	-	-	-	-	1.597	-	-	2.322	-	-	-	-	-	2.322
<i>Subtotal: Recurring Cost</i>	-	-	-	-	-	-	-	-	1.597	-	-	2.322	-	-	-	-	-	2.322
<i>Subtotal: Logistics Cost</i>	-	-	-	-	-	-	-	-	1.597	-	-	2.322	-	-	-	-	-	2.322
Support - Program Management Cost																		
Contractor Management	-	-	56.239	-	-	5.510	-	-	4.303	-	-	3.673	-	-	-	-	-	3.673
<i>Subtotal: Support - Program Management Cost</i>	-	-	56.239	-	-	5.510	-	-	4.303	-	-	3.673	-	-	-	-	-	3.673
Gross/Weapon System Cost	789.184	2,156	1,701.481	171.156	687	117.584	163.675	754	123.411	555.706	163	90.580	-	-	-	555.706	163	90.580

Remarks:
 Increase in unit cost for CTC-IS Modernization (row 1 under Recurring Cost) from \$2.500 million in FY19 to \$15.600 million in FY20 is because the procurements required for modernization are different for each CTC site. In FY19, funds support three mobile Remote Base Station (RBS) capabilities. In FY20, funds support modernization at a site requiring tower replacements and a live fire bunker.

Increase in unit cost for Opposing Forces (OPFOR) Surrogate Vehicles (OSV) {Row 15 under Recurring Cost} from \$175,526 per unit in FY19 to \$272,860 per unit in FY20 is due to the differing efforts in both years. In FY 19, funds support the procurement of turrets for both vehicles and the main battle tanks and the procurement of thermal receiving units. In FY20, however, funds support the procurement of thermal thermal sights.

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 70	P-1 Line Item Number / Title: 1780MA6600 / Combat Training Centers Support	Item Number / Title [DODIC]: MA6601 / Combat Training Centers (CTC) Support
ID Code (A=Service Ready, B=Not Service Ready) :		MDAP/MAIS Code:

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Army	Quantity	687	754	163	-	163
	Total Obligation Authority	117.584	123.411	90.580	-	90.580
Total:	Quantity	687	754	163	-	163
Secondary Distribution	Total Obligation Authority	117.584	123.411	90.580	-	90.580

(†) indicates the presence of a P-5a

UNCLASSIFIED

Exhibit P-5a, Procurement History and Planning: PB 2021 Army										Date: February 2020		
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 70			P-1 Line Item Number / Title: 1780MA6600 / Combat Training Centers Support					Item Number / Title [DODIC]: MA6601 / Combat Training Centers (CTC) Support				
Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty (Each)	Unit Cost (\$ K)	Specs Avail Now?	Date Revision Available	RFP Issue Date
Combat Training Center Instrumentation System (CTC-IS) Modernization		2019	Advanced IT Concepts, INC. / Winter Springs, FL	C / FFP	ACC, Orlando, FL	Jul 2019	Jul 2020	1	2,500.000	Y		
Combat Training Center Instrumentation System (CTC-IS) Modernization		2020	TBS (CTC IS) / TBS	C / FFP	ACC, Orlando, FL	Jul 2020	Jul 2021	6	2,600.000	Y		
CTC LIVE FIRE MOD Kits		2019	Theissen Training Systems Inc. / Chiefland, FL	Option / IDIQ	DLA, Philadelphia, PA	Jul 2019	Feb 2020	477	9.727	Y		
CTC LIVE FIRE MOD Stationary Infantry Targets (SIT) Kits		2020	Theissen Training Systems Inc. / Chiefland, FL	Option / IDIQ	DLA, Philadelphia, PA	Jan 2020	Aug 2020	642	8.970	Y		
OPFOR Integrated Air Defense System (IADS) TASS		2019	INTER COASTAL ELECTRONICS INC / MESA AZ 85215-2740	Option / FFP	ACC, Orlando, FL	Aug 2019	Aug 2020	22	67.955	Y		
OPFOR Integrated Air Defense System (IADS) RSE ^(†)		2020	TBS (IADS RSE) / TBS	C / IDIQ	ACC, Orlando, FL	Dec 2019	Nov 2020	2	6,862.500	Y		
OPFOR Integrated Air Defense System (IADS) RSE ^(†)		2021	TBS (IADS RSE) / TBS	C / IDIQ	ACC, Orlando, FL	Dec 2020	Aug 2021	1	6,815.000	N		
Opposing Forces (OPFOR) Surrogate Vehicles (OSV) Tank Thermal Sights (TTS)		2019	DRS Technologies (OSV) / Arlington, VA	Option / FFP	TACOM Contracting Center	Feb 2019	Jul 2019	156	175.526	Y		
Opposing Forces (OPFOR) Surrogate Vehicles (OSV) Tank Thermal Sights (TTS)		2020	DRS Technologies (OSV) / Arlington, VA	Option / FFP	TACOM Contracting Center	Feb 2020	Jul 2020	22	272.864	Y		
Opposing Forces (OPFOR) Vehicles Conversion		2019	DRS Technologies (OSV) / Arlington, VA	C / FFP	TACOM	Feb 2019	Jul 2019	26	884.615	Y		
Opposing Forces (OPFOR) Surrogate Wheeled Vehicle (OSWV) Technical Vehicles		2020	Rock Island Arsenal Depot / Rock Island, IL	MIPR	Rock Island, IL	Feb 2020	Jul 2021	34	50.000	Y		
Opposing Forces (OPFOR) Surrogate Wheeled Vehicle (OSWV) Technical Vehicles		2021	Rock Island Arsenal Depot / Rock Island, IL	MIPR	Rock Island, IL	Feb 2021	Jul 2022	69	50.000	Y		
Opposing Forces (OPFOR) Surrogate Wheeled Vehicle (OSWV) Visual Modifications ^(†)		2020	Rock Island Arsenal Depot / Rock Island, IL	MIPR	Rock Island, IL	Feb 2020	Jul 2021	43	206.186	Y		
Opposing Forces (OPFOR) Surrogate Wheeled Vehicle (OSWV) Visual Modifications ^(†)		2021	Rock Island Arsenal Depot / Rock Island, IL	MIPR	Rock Island, IL	Feb 2021	Jul 2022	88	206.000	Y		
IC3NS HW Components		2019	Scientific Research Corp (IC3NS) / Norfolk, VA	C / IDIQ	ACC, Orlando, FL	Sep 2019	Jun 2020	2	2,241.000	Y		

UNCLASSIFIED

Exhibit P-5a, Procurement History and Planning: PB 2021 Army							Date: February 2020				
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 70			P-1 Line Item Number / Title: 1780MA6600 / Combat Training Centers Support				Item Number / Title [DODIC]: MA6601 / Combat Training Centers (CTC) Support				

Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty (Each)	Unit Cost (\$ K)	Specs Avail Now?	Date Revision Available	RFP Issue Date
IC3NS HW Components		2020	Scientific Research Corp (IC3NS) / Norfolk, VA	C / IDIQ	ACC, Orlando, FL	Mar 2020	Dec 2020	2	1,621.000	Y		
IC3NS HW Components		2021	Scientific Research Corp (IC3NS) / Norfolk, VA	C / IDIQ	ACC, Orlando, FL	Jan 2021	Aug 2021	2	1,519.000	Y		
EW/Space/Cyber ^(†)		2019	Test LLC / Tucker, GA 30084	C / IDIQ	ACC, Orlando, FL	Feb 2019	Feb 2020	3	600.000	Y		
EW/Space/Cyber ^(†)		2020	TBS (EW/Space/Cyber) / TBS	C / IDIQ	ACC, Orlando, FL	Mar 2020	Dec 2020	3	3,818.000	N		
EW/Space/Cyber ^(†)		2021	TBS (EW/Space/Cyber) / TBS	C / IDDQ	ACC, Orlando, FL	Mar 2021	Dec 2021	3	3,051.333	N		

^(†) indicates the presence of a P-21

Remarks:
PEO STRI = Program Executive Office for Simulation, Training and Instrumentation
Army Contracting Command, (ACC) Orlando, FL

EW/Space/Cyber are COTS items. Fluctuations in unit costs are due to the nature of the difference in upgrade changes from FY2019 to FY2020.

CTC Live Fire Modernization Target Kit costs are dependent on the quantities and the types of targets being procured per year. For example, FY19 is the only year that the program is procuring MATs, which are by far the most expensive type of target at an estimated 177K each, followed by MITs at 29K each.

UNCLASSIFIED

Exhibit P-21, Production Schedule: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 70		P-1 Line Item Number / Title: 1780MA6600 / Combat Training Centers Support
		Item Number / Title [DODIC]: MA6601 / Combat Training Centers (CTC) Support

Cost Elements <i>(Units in Each)</i>					Fiscal Year 2021													Fiscal Year 2022													BALANCE		
O C C #	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2020	BAL DUE AS OF 1 OCT	Calendar Year 2021													Calendar Year 2022													
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P			
OPFOR Integrated Air Defense System (IADS) RSE																																	
1	2020	ARMY		2	0	2	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0				
1	2021	ARMY		1	0	1			A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0				
Opposing Forces (OPFOR) Surrogate Wheeled Vehicle (OSWV) Visual Modifications																																	
2	2020	ARMY		43	0	43	-	-	-	-	-	-	-	-	-	10	10	10	10	3	-	-	-	-	-	-	-	-	0				
2	2021	ARMY		88	0	88				A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	58					
EW/Space/Cyber																																	
4	2019	ARMY		3	3	0																							0				
3	2020	ARMY		3	0	3	-	-	3																				0				
3	2021	ARMY		3	0	3																							0				
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P			

UNCLASSIFIED

Exhibit P-21, Production Schedule: PB 2021 Army															Date: February 2020														
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 70										P-1 Line Item Number / Title: 1780MA6600 / Combat Training Centers Support										Item Number / Title [DODIC]: MA6601 / Combat Training Centers (CTC) Support									

Cost Elements <i>(Units in Each)</i>						Fiscal Year 2023												Fiscal Year 2024												B A L A N C E	
O C C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2022	BAL DUE AS OF 1 OCT	Calendar Year 2023												Calendar Year 2024												
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G		S E P
OPFOR Integrated Air Defense System (IADS) RSE																															
	1	2020	ARMY	2	2	0																							0		
	1	2021	ARMY	1	1	0																							0		
Opposing Forces (OPFOR) Surrogate Wheeled Vehicle (OSWV) Visual Modifications																															
	2	2020	ARMY	43	43	0																							0		
	2	2021	ARMY	88	30	58	10	10	10	10	10	10	8																0		
EW/Space/Cyber																															
	4	2019	ARMY	3	3	0																							0		
	3	2020	ARMY	3	3	0																							0		
	3	2021	ARMY	3	3	0																							0		
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	

UNCLASSIFIED

Exhibit P-21, Production Schedule: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 70		P-1 Line Item Number / Title: 1780MA6600 / Combat Training Centers Support
		Item Number / Title [DODIC]: MA6601 / Combat Training Centers (CTC) Support

MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Year)			Procurement Leadtime (Months)							
		MSR For 2021	1-8-5 For 2021	MAX For 2021	Initial				Reorder			
					ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1	ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1
1	TBS (IADS RSE) - TBS	1	2	3	0	2	12	14	0	2	9	11
2	Rock Island Arsenal Depot - Rock Island, IL	10	75	185	0	4	18	22	0	4	18	22
3	TBS (EW/Space/Cyber) - TBS	1	1,000	1,500	0	5	10	15	0	5	10	15
4	Test LLC - Tucker, GA 30084	1	1,000	1,500	0	4	13	17	0	4	13	17

"A" in the Delivery Schedule indicates the Contract Award Date.

Note: Due to space limitations, quantities in the Exhibit P-21 delivery calendar are truncated and rounded based on the maximum quantity in the calendar as follows. If the maximum quantity is less than or equal to than 9,999, all quantities are shown as each. If the maximum quantity is between 10,000 and 999,999 all quantities are shown in thousands. If the maximum quantity is between 1,000,000 and 999,999,999 all quantities are shown in millions (rounded to the nearest thousand). If the maximum quantity is equal or greater than 1,000,000,000 all quantities are shown in billions (rounded to the nearest million).

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 70: Training Equipment	P-1 Line Item Number / Title: 2062NA0100 / Training Devices, Nonsystem
---------------------------------------------------------------------------------------------------------------------------------------------------------------	----------------------------------------------------------------------------------

ID Code (A=Service Ready, B=Not Service Ready):	Program Elements for Code B Items: 0654715A	Other Related Program Elements: N/A
--------------------------------------------------------	----------------------------------------------------	--------------------------------------------

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	24,740	1,116	1,140	1,917	-	1,917	2,877	3,413	3,681	16,049	Continuing	Continuing
Gross/Weapon System Cost (<i>\$ in Millions</i>)	5,760.706	217.597	215.453	161.814	-	161.814	172.346	188.148	189.306	201.457	Continuing	Continuing
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	5,760.706	217.597	215.453	161.814	-	161.814	172.346	188.148	189.306	201.457	Continuing	Continuing
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	5,760.706	217.597	215.453	161.814	-	161.814	172.346	188.148	189.306	201.457	Continuing	Continuing

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Thousands</i>)	232.850	194.979	188.994	84.410	-	84.410	59.905	55.127	51.428	12.553	Continuing	Continuing

Description:

The Army continues to build on a major initiative with the Non-System Training Device (NSTD) program to introduce realistic and effective training devices into the individual and unit training setting. These devices bring into play many aspects of the combat environment (smoke, noise, confusion, stress, etc.), which provide our Soldiers with a valuable experience of battlefield conditions in a training environment. This effort includes the acquisition of training capabilities that support force-on-force training, force-on-target training, engagement simulation, and classroom instruction. Devices and simulations are being fielded to minimize resource consumption which will affect a direct cost reduction through conservation of energy and ammunition. These devices provide capabilities that allow Soldiers, leaders, and units to train tasks and missions that would be unsafe or too resource intensive to conduct with actual weapons, weapons systems, and ammunitions or if done in the actual environment. This budget line supports all Other Procurement, Army (OPA) funding for Non-System Training Devices (NSTD). It procures a variety of NSTD items such as the Medical Simulation Training Center (MSTC), Basic Electronics Maintenance Trainer (BEMT), Intelligence & Electronic Warfare Tactical Proficiency Trainer (IEWTPT), Common Battle Command Simulations Equipment (CBCSE), Joint Land Component Constructive Training Capability (JLCCTC), Digital Range Training System (DRTS), Army Targetry System (ATS), Combat Training Center Live Fire Modernization (CTC Live Fire Mod), Target Modernization, Battle Command Training Capability - Equipment Support (BCTC-ES), Soldier Monitoring System, Joint Pacific Multinational Readiness Capability Information System (JPMRC-IS), Home Station Instrumentation Systems (HITS), Instrumentable Multiple Integrated Laser Engagement System (I-MILES), Common Training Instrumentation Architecture (CTIA), and Live, Virtual, Constructive Integrating Architecture (LVC-IA).

The Medical Simulation Training Center (MSTC) is a critical readiness enabler for combat units as it provides realistic medical training to both medical and non-medical Soldiers in the Active, Reserve, and National Guard. MSTCs provide hands-on instruction on the latest battlefield trauma and critical care techniques based on Army Medical Department (AMEDD) approved performance oriented Program of Instructions (POI). Medical treatment validation exercises simulate the high stress of performing medical interventions in combat. MSTC supports Unit Medical Readiness by validating Combat Medic Military Occupational Specialty (MOS) (68W) Emergency Medical Technician (EMT) biennial recertification requirements and provides Combat Lifesaver (CLS) training to non-medical Soldiers.

The Basic Electronics Maintenance Trainer (BEMT) provides the essential modernized electronic system maintenance training capability for the Army, Army National Guard, and the Army Reserve to achieve Military Occupational Specialty-Qualification (MOS-Q) for 40 Military Occupational Specialties (MOS) at 24 Active, National Guard, and Army Reserve camps, posts, and stations. Soldiers utilizing the BEMT system receive highly realistic training using scenarios which require performing basic electronic tasks in a virtual environment including tests, diagnosis, and repair while saving institutions significant expenses over live training alternatives. The BEMT consists of an Instructor Operator Station (IOS), Student Training Station(s) (STS), associated test equipment, COTS computer, electronics console(s), supporting experiment cards, soldering station, and content server as applicable.

The Intelligence Electronic Warfare Tactical Proficiency Trainer (IEWTPT) is the key training device for the Military Intelligence Training Strategy (MITS) enabling military intelligence (MI) soldier readiness in support of mission command, targeting, and intelligence soldier certification. It fills a MI specific warfighting function training gap at Home-Station by supporting sustainment of critical individual, crew, and

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 70: Training Equipment		P-1 Line Item Number / Title: 2062NA0100 / Training Devices, Nonsystem
ID Code (A=Service Ready, B=Not Service Ready):	Program Elements for Code B Items: 0654715A	Other Related Program Elements: N/A
Line Item MDAP/MAIS Code: N/A		
<p>collective multi-intelligence MOS tasks/skills. IEWTPT tools drive multi echelon training events allowing the collection, synchronization, integration, production and dissemination of intelligence training data and products to support the commander's Priority Intelligence Requirements (PIR) and inform operational decision making in a train as you fight environment. IEWTPT provides a realistic Intelligence target environment for Multi-Intelligence disciplines such as Signals Intelligence (SIGINT), Imagery Intelligence (IMINT), Human Intelligence (HUMINT), Geospatial Intelligence (GEOINT) and All Source Intelligence and must stimulate and emulate multiple Intelligence, Surveillance, Reconnaissance (ISR) platform systems such as: PROPHET, Distributed Common Ground Station-Army (DCGS-A), Tactical Ground Station (TGS), and Aerial Intelligence assets such as Enhanced Medium Altitude Reconnaissance and Surveillance System (EMARSS) and Guardrail Common Sensor (GRCS). IEWTPT provides the "Digital Range" for Warfighting Commanders at all echelons to train intelligence tasks based on accurately portraying the operational environment and simulating and stimulating MI warfighting equipment where system operators and analysts are able to synchronize their Intelligence, Surveillance, and Reconnaissance (ISR) assets to exploit exercise intelligence data and provide the commander with required, executable, intelligence information. IEWTPT is a Non-System Training Device (NSTD) that provides proficiency training for analyst and system operators to exploit intelligence data during training, just as they would in "Real World" operations. The IEWTPT Technical Control Cell (TCC) is composed of two components: The Lower Enclave (LE) which supports exercise planning and development and drives the All Source and GEOINT training tasks and the Upper Enclave (UE) which supports all SIGINT related training and operates at the Top Secret / Sensitive Compartmented Information (TS/SCI) classification level. Increment 2 will be a software only environment and provide training capabilities that are synchronized with emerging Intelligence Corps system modernization priorities supporting multi-domain operations.</p> <p>Joint Land Component Constructive Training Capability (JLCCTC) supports Army Title X training worldwide for Army Commanders and their staff at Mission Training Complexes (MTCs), Training and Doctrine Command (TRADOC) facilities, and other customer locations. JLCCTC trains Commanders and their staff in Decisive Actions to include offensive, defensive, stability, and civil support operations. JLCCTC is a software modeling and simulation capability that contributes to Army Training Mission Area by providing appropriate levels of model and simulation resolution and fidelity to support unit collective and combined arms training. The JLCCTC provides a composable federation configurable to any combination of models and simulations, as required by training exercise intent/design. The JLCCTC provides accurate representations of tactically and operationally relevant land warfare operations executed in a contemporary Joint operating environment/context in support of Army Commander and Staff Training.</p> <p>Common Battle Command Simulation Equipment (CBCSE) is a fundamental element of the Joint Land Component Constructive Training Capability (JLCCTC) Program of Record, which supports institutional and operational Mission Command training for Active, Reserve, and National Guard units. CBCSE procures and fields commercial-off-the-shelf hardware, software and delta/new equipment training in support of JLCCTC for Army Hub and Spoke Mission Training Complexes and Combat Training Centers. CBCSE must be capable of running each JLCCTC fielded software version of Army training in support of Army Command and Staff training.</p> <p>The Digital Range Training System (DRTS) provides modern digital technology ranges capable of training, evaluating and stressing today's Soldiers and their equipment. DRTS systems score various weapons and records data and video for utilization in an After Action Review (AAR). DRTS supports qualification gunnery tables for Armor (Abrams), Infantry (Bradley & Stryker mounted & dismounted) and Aviation platforms. The four standard training ranges identified utilize all available combat systems capabilities and digitally integrate them to manage all forces undergoing individual and collective live-fire training and qualification: Digital Multi-Purpose Range Complex (DMPRC) supports all gunnery tables and Combined Arms Live fire Exercise (CALFEX) for Abrams, Bradley, and limited Aviation; Digital Multi-Purpose Training Range (DMPTR) supports crew and section qualification for Armor and Infantry; Battle Area Complex (BAX) supports Stryker gunnery tables plus infantry-centric Platoon / Company CALFEX; Digital Air Ground Integration Range (DAGIR) supports all gunnery tables and CALFEX for Abrams, Bradley, and Aviation platforms (including diving fire).</p> <p>Army Targetry Systems (ATS) will provide computerized live fire Armor and Infantry training ranges to the Army, Active Reserve (USAR) and Army National Guard (ARNG) installations. This equipment enables trainers to develop scenarios and to control targetry and battlefield simulation devices so that soldiers can practice wartime mission tasks in a stressful battlefield environment. The computerized system also provides feedback on individual and unit level performance to enable recognition of problem areas needing corrective action while at the same time recognizing positive performance. This equipment reinforces correct procedures and fosters soldier's confidence. The fielded equipment includes stationary and moving infantry and armor targets along with battlefield simulators for sound and sight. All ranges can be used with Multiple Integrated Laser Engagement System (MILES) equipment.</p> <p>Combat Training Center Live Fire Modernization (CTC Live Fire Mod) provides Future Army System of Integrated Targets (FASIT) qualified live-fire capable targets which includes Stationary Armor Targets (SAT) with accompanying Battlefield Effects Simulators (BES), Stationary Infantry Targets (SIT), Human Urban Targets (HUT), Double-Arm SITs, Moving Infantry Targets (MIT), and non-FASIT qualified Aviation 3-D and Unattended Aerial Systems (UAS) targets. These provide a capability for the CTCs to support the transition from Mission Rehearsal Exercise/Situational Training Exercise (MRE/ST) rotations to Unified Land Operations (ULO) against a hybrid threat.</p>		

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 70: Training Equipment		P-1 Line Item Number / Title: 2062NA0100 / Training Devices, Nonsystem
ID Code (A=Service Ready, B=Not Service Ready):	Program Elements for Code B Items: 0654715A	Other Related Program Elements: N/A
Line Item MDAP/MAIS Code: N/A		
<p>The Target Modernization program provides a single standard/solution in support of all non-digital live fire ranges throughout the Army ahead of the establishment of the Future Army System of Integrated Targets (FASIT) Program of Record. Target Modernization provides live fire target systems on U.S. Army training ranges, by enhancing training realism, improve Soldiers, Leader, and Team Performance, and developing agile and adaptive leaders. FASIT provides a Government owned and managed target control software capability, target systems and ancillary devices, interconnection, and After Action Report systems via wired/wireless network, and can operate as a standalone system without any footprint dependencies outside of the range to support live-fire training requirements to Soldiers and Commanders. Streamlines the logistics footprint, by supporting organic (Government) support.</p> <p>Battle Command Training Capability-Equipment Support (BCTC-ES) provides the furniture, fixtures, equipment (FFE) enabling the installation Mission Training Complex (MTC) to provide Home Station Training for the War Fighter. FFE includes network infrastructure hardware and software, Reconfigurable Tactical Operation Center (RTOC), tech control suites, classrooms, work cell capabilities and technical tools required for 33 MTC locations and for MTC Military Construction, Army (MCA) projects. FFE enables the linkage of constructive simulations to Mission Command (MC) systems, individual and collective MC training and War fighter Exercises. BCTC-ES provides equipment that integrates Army MC Systems into Tactical Operation Center (TOC) sets, providing visualization of the Common Operating Picture (COP) and the linkage within an MTC that supports secure and distributed MC/Simulation training. Provides Architectural and Engineering (A&E) support to the MTC Design Board for new MCA development.</p> <p>The Soldier Monitoring System (SMS) is the materiel solution that provides real-time automated Soldier tracking, emergency alert, no-motion alerts, man down alerts, and boundary alerts. Since initial fielding, the SMS has supported over 900 training events, and safeguarded more than 15,000 Soldiers. During those events, several emergencies occurred in which the SMS accurately located the distressed Soldier. The SMS has mitigating training risk with its 96% tracking accuracy and coverage. The system consists of four subsystems: Communications Subsystem (CS); Soldier Worn Device (SWD); Monitoring System (MS); and Mobile Monitoring System (MMS). CPD Signed 26 May 2019.</p> <p>The Joint Pacific Multinational Readiness Capability-Instrumentation System (JPMRC-IS) is a transportable instrumentation system that provides instrumented training for the Brigade Combat Team and below. JPMRC-IS a rapidly deployable, self-supported system providing an Observer Controller Communications Systems, Battle Command Systems, Instrumentation System, Embedded Constructive Simulations, TAF workstations, Voice and Video Monitoring, AAR presentation, and provides its own power generation. JPMRC-IS performs the end-to-end mission functions of Exercise Planning, System Preparation, Exercise Management, Monitoring, and Control, Training Performance Feedback through onsite AARs and unit Take Home Packages.</p> <p>The Home Station Instrumentation Training System (HITS) provides a high-fidelity deployable instrumented training capability to support platoon through battalion level Live Force-on-Force Training. HITS tracks the location of soldiers and vehicles and simulates weapons' effects and engagements, allowing units to "Train as they Fight" against live opponents. HITS provides accurate feedback to training units. HITS consists of light deployable components that can be rapidly assembled/disassembled and transported to support deployed training. HITS integrates with future and legacy MILES. HITS is a member of the Live Training Transformation (LT2) family of training systems and shares several hardware and software components with the Instrumentation Systems (IS). HITS provides the Live domain for Live-Virtual-Constructive (LVC) training integration.</p> <p>The Instrumentable-Multiple Integrated Laser Engagement System (I-MILES) program enhances the warfighter's capability to prepare for combat operations allowing training and assessment of individual and collective tasks during force-on-force operations. The devices use an eye-safe laser to replicate the engagement effects of their intended "line of sight" weapons systems. I-MILES provides realistic, real-time casualty effects for force-on-force tactical engagement training scenarios and its ability to integrate into training instrumentation systems provide for high fidelity combined arms combat exercises. Due to their modular design, I-MILES devices are approved for use at Home Station, the Combat Training Centers (CTCs) and in the theater of operations to meet training requirements. The current "Instrumentable" MILES replaces the previously fielded "Basic" MILES, which cannot integrate into training instrumentation systems. Army Tactical Engagement Simulation System (A-TESS) will combine existing I-MILES capabilities with indirect fire capabilities into a single TESS program of record.</p> <p>The Common Training Instrumentation Architecture (CTIA) is the critical core product-line architecture of the Live, Virtual, Constructive Integrated Training Environment (LVC-ITE). The program provides Army owned software, product-line architecture, product-line software, standards, services, and the architectural framework for supporting the Live Training Transformation (LT2) of Live Training Systems (LTS) to include Army-wide live instrumented Force-On-Force (FOF) and Force-On-Target (FOT) training requirements. It includes Post Deployment Software Support (PDSS) and technology refresh for the LT2 family of LTS as well, with over 200 fielded training systems across the Army at both CONUS and OCONUS locations. CTIA also provides the live training standard for achieving and maintaining interoperability between LTS and the Live, Virtual, Constructive Integrating Architecture (LVC-IA), battle command and control (C2) systems.</p>		

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 70: Training Equipment	P-1 Line Item Number / Title: 2062NA0100 / Training Devices, Nonsystem
------------------------------------------------------------------------------------------------------------------------------------------------------------------	----------------------------------------------------------------------------------

ID Code (A=Service Ready, B=Not Service Ready):	Program Elements for Code B Items: 0654715A	Other Related Program Elements: N/A
--------------------------------------------------------	----------------------------------------------------	--------------------------------------------

Line Item MDAP/MAIS Code: N/A

The Live, Virtual, Constructive - Integrating Architecture (LVC-IA) provides a net-centric linkage that collects, retrieves and exchanges data among existing Training Aids, Devices, Simulations, and Simulators (TADSS) and Mission Command Systems. LVC-IA provides the architecture that enables the Army to utilize the Live, Virtual, and Constructive training devices in the Army's Integrated Training Environment (ITE). The LVC-IA defines "how" information is exchanged among the different LVC domains and the Mission Command Systems. The LVC-IA provides enterprise level tools for exercise control, After Action Review, and system information assurance. It also provides hardware and software to interface the different Live, Virtual, and Constructive communication protocols and provides a correlated common operating picture for the training audience on their organic Mission Command equipment. The integration of the Live, Virtual, and Constructive and Gaming TADSS with the Mission Command equipment will enable larger and more robust training events to better prepare U.S. Soldiers for their missions at an overall reduced cost. The end-state goal is to enable an LVC Integrated Training Environment that can cost effectively replicate Operational Environments to provide a high level of value-added training and mission rehearsal opportunities to Army Commanders and their Soldiers enhancing Army training and readiness.

	Secondary Distribution	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
Army	Quantity	959	1,096	1,808	-	1,808	2,854	3,250	3,594	15,950
	Total Obligation Authority	182.402	173.039	139.143	-	139.143	151.255	166.652	173.541	180.417
ANG	Quantity	63	37	103	-	103	17	107	47	54
	Total Obligation Authority	17.848	31.309	15.302	-	15.302	15.096	14.157	8.682	14.423
AR	Quantity	94	7	6	-	6	6	56	40	45
	Total Obligation Authority	17.347	11.105	7.369	-	7.369	5.995	7.339	7.083	6.617
Total:	Quantity	1,116	1,140	1,917	-	1,917	2,877	3,413	3,681	16,049
Secondary Distribution	Total Obligation Authority	217.597	215.453	161.814	-	161.814	172.346	188.148	189.306	201.457

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity:
2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 70: Training Equipment

P-1 Line Item Number / Title:
2062NA0100 / Training Devices, Nonsystem

ID Code (A=Service Ready, B=Not Service Ready): **Program Elements for Code B Items:** 0654715A **Other Related Program Elements:** N/A

Line Item MDAP/MAIS Code: N/A

Exhibits Schedule					Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-5	NA0101 / NSTD Soldier Training Support Program (STSP)	P-5a	A		636 / 2,684.628	574 / 44.614	264 / 28.539	100 / 5.134	- / -	100 / 5.134
P-5	NA0102 / NSTD INTELLIGENCE	P-5a	A		4 / 79.575	2 / 4.658	3 / 6.081	- / 1.607	- / -	- / 1.607
P-5	NA0103 / NSTD COMMAND & CONTROL	P-5a	A		24 / 472.626	15 / 38.112	24 / 35.313	23 / 35.038	- / -	23 / 35.038
P-5	NA0105 / NSTD RANGES AND TARGETS	P-5a, P-21	A		129 / 1,537.153	2 / 88.640	7 / 89.694	211 / 59.514	- / -	211 / 59.514
P-5	NA0106 / NSTD Battle Command Training Center Support Prg	P-5a			37 / 376.872	18 / 20.005	16 / 18.985	13 / 14.405	- / -	13 / 14.405
P-5	NA0110 / NSTD - Live Training	P-5a			- / -	- / -	- / -	4 / 9.845	- / -	4 / 9.845
P-5	NA0116 / NSTD- MILES	P-5a, P-21			23,897 / 518.391	498 / 13.487	819 / 28.488	1,559 / 26.105	- / -	1,559 / 26.105
P-5	NA0121 / NSTD - LVC ARCHITECTURE	P-5a			13 / 91.461	7 / 8.081	7 / 8.353	7 / 10.166	- / -	7 / 10.166
P-40	Total Gross/Weapon System Cost				24,740 / 5,760.706	1,116 / 217.597	1,140 / 215.453	1,917 / 161.814	- / -	1,917 / 161.814

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

Justification:

FY 2021 BASE procurement dollars in the amount of \$161.814 million supports the following efforts:

Soldier Training Support program of \$5.134 million consists of:

FY 2021 Base procurement dollars in the amount of \$4.400 million will provide Medical Training Command and Control (MT-C2), Post Deployment Software Support (PDSS) and MSTC technical refresh. The MT-C2 enables MSTC training environment manipulation, medical scenario integration, mannequin control, audio video (AV) surveillance and recording as well as hostile fire simulations and friendly force engagement control in order to maximize the positive impact and training experience of each fluid training event. Procurement dollars will also provide an additional MSTC to Ft. Hood. MSTCs provide medical training on basic and advanced medical skills necessary for recertification of US Army 68Ws, as well as trains non-medical Soldiers/Combat Lifesavers (CLS) on basic lifesaving tasks and techniques often experienced on the battlefield (Warrior Tasks). Procurement dollars will also provide 68W Accreditation Technical Refreshes of the MSTCs Advanced Cardia Life Support (ACLS) & Pediatric Advanced Life Support (PALS) systems.

FY2021 Base procurement dollars in the amount of \$0.734 million supports the Basic Electronics Maintenance Trainer (BEMT) II to procure, upgrade and install 91 BEMT II systems to provide increased capabilities in systems level training, distance learning, and soldering techniques.

Intelligence program of \$1.607 million consists of:

FY 2021 Base procurement dollars in the amount of \$1.607 million supports the Intelligence Electronic Warfare Tactical Proficiency Trainer (IEWTPT) concurrency updates and system synchronization with Intelligence programs of record such as the Distributed Common Ground Station-Army (DCGS-A) capability drops, Tactical Ground Station, Aerial Intelligence, Surveillance, Reconnaissance Sensors and emerging electronic warfare (EW) and cyber electromagnetic activities (CEMA) and requirements. IEWTPT consists of a blend of non-developmental COTS hardware components and mission specific software to support detailed Army intelligence corps training and soldier readiness at home station locations. Provides program office contractor engineering support. Increment 2 will be a software only environment and provide training capabilities that are synchronized with emerging Intelligence Corps system modernization priorities supporting multi-domain operations.

Command & Control program of \$35.038 million consists of:

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 70: Training Equipment		P-1 Line Item Number / Title: 2062NA0100 / Training Devices, Nonsystem
ID Code (A=Service Ready, B=Not Service Ready):	Program Elements for Code B Items: 0654715A	Other Related Program Elements: N/A
Line Item MDAP/MAIS Code: N/A		
<p>FY 2021 Base procurement dollars in the amount of \$35.038 million will be used to procure Common Battle Command Simulation Equipment (CBCSE) commercial off-the-shelf (COTS) hardware and software, to conduct Joint Land Component Constructive Training Capability (JLCCTC) post deployment software refinement and Pre-Planned Product Improvement (P3I) activities. This includes fixing Problem Tracking Reports (PTRs), First-Use exercise support and Training Documentation updates, Cyber Security/Risk Management Framework (RMF) and Mission Command Concurrency, Common Terrain integration, and Live, Virtual, Constructive - Integrating Architecture (LVC-IA) Interoperability, Regression Test of external interfaces to Joint and Coalition simulations, Fielding activities, Information Assurance Vulnerability Assessment (IAVA), Configuration Management, provide a Low Overhead Capability (DXTRS), CTC-IS and IEWTPPT interoperability, conduct fielding and training activities of the Single Federation solution, and Helpdesk activities. Quantities represent sites and vary to configuration of site size, therefore, causing unit costs to fluctuate. The base quantity reflects the number of planned fielding events.</p> <p>Ranges and Targets program of \$59.514 million consists of:</p> <p>FY2021 Base procurement dollars in the amount of \$34.836 million supports the Digital Range Training System (DRTS) program with execution of Ft. Knox Phase II Digital Air-Ground Integration Range (DAGIR) and the following Continuous Technology Refreshment (CTR): Ft. Riley DMPTR Tier 1&2, Ft. Riley DMPRC Tier 2, and YTC DMPRC Tier 2. Funding also supports Unmanned Aircraft Systems (UAS) Implementation, Post Deployment Software Support (PDSS), Aviation Integration (AI), travel, and contractor engineering and cybersecurity support.</p> <p>FY2021 Base procurement dollars in the amount of \$12.842 million procures for the Army Targetry Systems (ATS) program targets for a Ft. Campbell Infantry Platoon Battle Course, Camp Roberts Multipurpose Machine Gun Range, Camp Edwards Multipurpose Machine Gun Range, Camp Shelby Multipurpose Machine Gun Range, and Continuous Technology Refreshment (CTR) Lifecycle Management of 12 ranges in multiple locations. These ranges will replace existing ranges with new technology and increase throughput capability by providing additional ranges. Readiness of soldiers is critical to saving lives in wartime situations. Training ranges being provided will enhance the quality of training at installations. Accurate feedback to soldiers on training with battlefield conditions helps them learn procedures and techniques that will save lives and achieve success on the battlefield.</p> <p>FY2021 Base procurement dollars in the amount of \$5.623 million procures for Combat Training Center Live Fire Modernization (CTC Live Fire Mod) targets for NTC and JRTC that are integrated into the Range Communication System network for a quantity of 200 Human Urban Targets (HUT), 2 Moving Armor Targets (MAT), 4 Battle Effects Simulators (BES), and ancillary equipment. Funding also supports integration, contractor engineering support, and travel.</p> <p>FY2021 Base procurement dollars in the amount of \$6.213 million supports the Target Modernization program with providing a single government-owned common target control system for all Army targets and small arms ranges, this includes: Range Configuration Management efforts to establish and maintain hardware and software baseline definition and control needed to support operations at the 290+ ranges utilizing the TRACR software; Continuous Technology Refreshment (CTR) of the hardware and software baselines to align with emerging hardware changes, and cybersecurity changes; Post Deployment Software Support (PDSS) of the TRACR/TRACR Suite/TRACR LOMAH family of products; evolution of the Future Army System of Integrated Targets (FASIT) standards and specifications to maintain relevancy; provide for integration and procurement of Targetry Range Automated Control and Recording (TRACR) Legacy Range and Device Adapters to support to migration of TRACR to legacy ranges without having to replace targets; and advance the TRACR Product Line to maintain synchronization with Common Training Instrumentation Architecture (CTIA). FY2021 Base procurement dollars also provides for the conversion of approximately 60 legacy ranges to the Government owned target control system software Targetry Range Automated Control and Recording (TRACR), provides also for appropriate alignment to cybersecurity requirements, property accountability for the new equipment fielded, and system training.</p> <p>Battle Command Training Support Program of \$14.405 million consists of:</p> <p>FY 2021 Base procurement dollars in the amount of \$14.405 million procures network infrastructure hardware and software to maintain Risk Management Framework requirements for 18 Mission Training Complex (MTC) locations, technology refresh for Mission Command Tactical Server Infrastructure at eight (8) MTC, the refresh of furniture, fixtures and equipment (FFE) for 10 MTC locations and equipping the US Army Central Command MTC MCA project w/FFE, the Electronic Security System access control design, procurement and installation for the Joint Multinational Simulation Center MTC MCA USAG Bavaria (Grafenwoehr) and technology refresh of VTC capability at eight (8) MTC locations. The cost varies by site and fiscal year, depending on the size of the MTC, time between technology refresh and Army component AC, USARNG and USAR. The onset of the RMF process, increased network and boundary enclave requirements has driven up the costs to maintain accreditation and system security.</p> <p>LIVE Training Program of \$9.845 million consists of:</p>		

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 70: Training Equipment		P-1 Line Item Number / Title: 2062NA0100 / Training Devices, Nonsystem
ID Code (A=Service Ready, B=Not Service Ready):	Program Elements for Code B Items: 0654715A	Other Related Program Elements: N/A
Line Item MDAP/MAIS Code: N/A		
<p>FY 2021 Base procurement dollars in the amount of \$4.881 million supports the procurement of 4 Soldier Monitoring System's for real-time automated Soldier tracking. The Soldier Monitoring System consists of four subsystems: Communications, Soldier Worn Device, Monitoring System and Mobile Monitoring System.</p> <p>FY 2021 Base procurement dollars in the amount of \$1.350 million for the Joint Pacific Multinational Readiness Capability Information System (JPMRC-IS) program will be used to procure continued Post Development Software Support (PDSS) located at Schofield Barracks, HI.</p> <p>FY21 Base procurement dollars in the amount of \$3.614 million will continue to provide the Home Station Instrumentation Systems (HITS) program's Post-Deployment Software Support (PDSS) efforts and contractor support. PDSS will maintain the system relevancy and ensure concurrence of combined arms training capabilities with integration into Live Virtual Constructive Integrated Architecture (LVC-IA) for simulation interoperability.</p> <p>MILES Program of \$26.105 million consists of:</p> <p>FY 2021 Base procurement dollars in the amount of \$26.105 million procures for the Instrumentable-Multiple Integrated Laser Engagement System (I-MILES) program 1,559 Wireless Independent Target System kits, Continuous Technology Refreshment, and engineering change proposals, contractor management support and fielding costs. The technology refresh incorporates the Live Training Engagement Composition architecture and Engineering Change Proposals that refine and enhance the VTESS systems during its initial fielding. I-MILES systems support Brigade Combat Teams down to the squad level and can be integrated into the Live-Virtual-Constructive Integrated Architecture as a component of the full training environment. I-MILES enhances the Warfighter's ability to effectively train individual and collective combat skills in a safe training environment. The data from I-MILES systems provide information for After Action Reviews to assess Tactics Techniques Procedures. The completion of the I-MILES basis of issue plan and pure fleetings of the I-MILES product lines will standardize training at Home Station, Combat Training Centers and deployed training environments. Pure fleetings the I-MILES product lines allows maximized maintenance efficiencies and balance requirements to set the conditions for Commanders to conduct improved force-on-force training contributing to unit readiness supporting the 40th Chief of the Staff of the Army's priority of "Readiness".</p> <p>LVC Architecture Program of \$10.166 million consists of:</p> <p>FY 2021 Base procurement dollars in the amount of \$3.057 million supports the required CTIA program infrastructure, core lab facility, post deployment software support, and technology refresh and modifications for the Live Training Transformation Family of Training Systems and the Live, Virtual, Constructive Integrated Training Environment.</p> <p>FY 2021 Base procurement dollars in the amount of \$7.109 million procures the Live, Virtual, Constructive - Integrating Architecture (LVC-IA) associated hardware and software, Post Deployment Software Support (PDSS) activities, version upgrades, technology refresh/ spares, site support and New Equipment Training (NET) at Army Mission Training Complexes (MTC) in preparation for Multi-Domain Operations 2028 and beyond. LVC-IA program PDSS provides a capability to support sustainment of the system software and its associated subsystems and components. LVC-IA program performs version upgrades for replacement or modification of components for reasons other than obsolescence including Pre-Planned Product Improvement (P3I), modification, conversion, reconfiguration, retrofit, and technology insertion to increase the performance capability of the system; program will begin to upgrade from Version 3 to Version 4 at five (5) fielded locations. Government Program Management will provide program management; engineering and technical oversight; activities necessary for Army Risk Management Framework (RMF) requirement; contract support and travel for the LVC-IA.</p> <p>In FY 2021, Home Station Instrumentation Training System (HITS), Joint Pacific Multinational Readiness Capability-Instrumentation System (JPMRC-IS), and Soldier Monitoring System (SMS) was moved from SSN NA0101 to NA0110 - NSTD LIVE Training.</p> <p>In FY 2021, Combat Training Center Live Fire Modernization (CTC Live Fire Mod) was moved from SSN MA6601 to NA0105 - Ranges and Targets. On 21 April 2019, the Future Army System of Integrated Targets (FASIT) Capability Production Document was approved. After the FASIT program is formally established, it will subsume the following programs: Combat Training Center Live Fire Modernization (CTC Live Fire Mod), Target Modernization, and Army Targetry Systems (ATS).</p>		

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 70: Training Equipment		P-1 Line Item Number / Title: 2062NA0100 / Training Devices, Nonsystem
ID Code (A=Service Ready, B=Not Service Ready):	Program Elements for Code B Items: 0654715A	Other Related Program Elements: N/A
Line Item MDAP/MAIS Code: N/A		
In accordance with Section 1815 of the FY 2008 National Defense Authorization Act (P.L. 110-181), this item is necessary for use by the active and reserve components of the Armed Forces for homeland defense missions, domestic emergency responses, and providing military support to civil authorities.		

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 70		P-1 Line Item Number / Title: 2062NA0100 / Training Devices, Nonsystem
		Item Number / Title [DODIC]: NA0101 / NSTD Soldier Training Support Program (STSP)

ID Code (A=Service Ready, B=Not Service Ready) : A	MDAP/MAIS Code:
-----------------------------------------------------------	------------------------

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Procurement Quantity (Units in Each)	636	574	264	100	-	100
Gross/Weapon System Cost (\$ in Millions)	2,684.628	44.614	28.539	5.134	-	5.134
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	2,684.628	44.614	28.539	5.134	-	5.134
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	2,684.628	44.614	28.539	5.134	-	5.134

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (\$ in Millions)	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Thousands)	4,221.113	77.725	108.102	51.340	-	51.340

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
Flyaway Cost																		
Recurring Cost																		
EST - Five Lane Subsystem/Refresh ^(†)	57.015	874	49.831	52.136	177	9.228	-	-	-	-	-	-	-	-	-	-	-	-
CFFT (Various Configurations)	686.429	28	19.220	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CFFT Concurrency/ PDSS	-	-	5.636	-	-	0.416	-	-	-	-	-	-	-	-	-	-	-	-
BEMT II Upgrades ^(†)	-	-	-	4.271	262	1.119	3.000	243	0.729	7.846	91	0.714	-	-	-	7.846	91	0.714
HITS version 4	3,772.500	2	7.545	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HITS Engineering Change Proposal	-	-	2.708	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HITS Concurrency	-	-	3.646	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HITS PDSS/CTR	-	-	21.772	-	-	3.982	-	-	2.661	-	-	-	-	-	-	-	-	-
JPMRC-IS FOC/ PDSS/CTR	-	-	30.605	-	-	14.071	-	-	17.523	-	-	-	-	-	-	-	-	-
MSTC MT-C2 ^(†)	820.400	20	16.408	350.000	6	2.100	342.286	7	2.396	299.250	4	1.197	-	-	-	299.250	4	1.197
MSTC TC3X ^(†)	96.203	79	7.600	34.884	129	4.500	250.000	14	3.500	-	-	-	-	-	-	-	-	-
MSTC MATT Concurrency	32.929	42	1.383	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MSTC Validation Lanes	33.000	2	0.066	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 70		P-1 Line Item Number / Title: 2062NA0100 / Training Devices, Nonsystem
ID Code (A=Service Ready, B=Not Service Ready) : A		MDAP/MAIS Code:
Item Number / Title [DODIC]: NA0101 / NSTD Soldier Training Support Program (STSP)		

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
MSTC Part Task Trainers	32.905	21	0.691	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MSTC Continous Tech Refreshment ^(†)	-	-	-	-	-	6.740	-	-	-	363.250	4	1.453	-	-	-	363.250	4	1.453
MSTC High Fidelity Tetherless Mannequin	-	-	4.981	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Racks and Shelving	-	-	2.139	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Training Devices	-	-	2,323.779	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MSTC New Site (Ft. Hood) ^(†)	-	-	-	-	-	-	-	-	-	1,750.000	1	1.750	-	-	-	1,750.000	1	1.750
<i>Subtotal: Recurring Cost</i>	-	-	<i>2,498.010</i>	-	-	<i>42.156</i>	-	-	<i>26.809</i>	-	-	<i>5.114</i>	-	-	-	-	-	<i>5.114</i>
<i>Subtotal: Flyaway Cost</i>	-	-	<i>2,498.010</i>	-	-	<i>42.156</i>	-	-	<i>26.809</i>	-	-	<i>5.114</i>	-	-	-	-	-	<i>5.114</i>
Support - Program Management Cost																		
Contractor Management	-	-	186.618	-	-	2.458	-	-	1.730	-	-	0.020	-	-	-	-	-	0.020
<i>Subtotal: Support - Program Management Cost</i>	-	-	<i>186.618</i>	-	-	<i>2.458</i>	-	-	<i>1.730</i>	-	-	<i>0.020</i>	-	-	-	-	-	<i>0.020</i>
Gross/Weapon System Cost	4,221.113	636	2,684.628	77.725	574	44.614	108.102	264	28.539	51.340	100	5.134	-	-	-	51.340	100	5.134

Remarks:

BEMT unit costs differ due to fielding locations (active Army vs Army National Guard), system configuration at each location. The original schedule for fielding has been updated to include the largest fielding's at the beginning and middle of the fielding schedule. BEMT procures COTS items.

In FY 2021, Home Station Instrumentation Training System (HITS), Joint Pacific Multinational Readiness Capability-Instrumentation System (JPMRC-IS), and Soldier Monitoring System (SMS) was moved from SSN NA0101 to NA0110 ? NSTD LIVE Training.

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Army	Quantity	423	233	2	-	2
	Total Obligation Authority	34.641	26.229	0.969	-	0.969
ANG	Quantity	59	29	96	-	96
	Total Obligation Authority	3.676	1.713	3.196	-	3.196
AR	Quantity	92	2	2	-	2
	Total Obligation Authority	6.297	0.597	0.969	-	0.969
Total:	Quantity	574	264	100	-	100

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 70	P-1 Line Item Number / Title: 2062NA0100 / Training Devices, Nonsystem	Item Number / Title [DODIC]: NA0101 / NSTD Soldier Training Support Program (STSP)

ID Code (A=Service Ready, B=Not Service Ready) : A	MDAP/MAIS Code:
-----------------------------------------------------------	------------------------

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Secondary Distribution	Total Obligation Authority	44.614	28.539	5.134	-	5.134

(t) indicates the presence of a P-5a

UNCLASSIFIED

Exhibit P-5a, Procurement History and Planning: PB 2021 Army							Date: February 2020				
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 70			P-1 Line Item Number / Title: 2062NA0100 / Training Devices, Nonsystem				Item Number / Title [DODIC]: NA0101 / NSTD Soldier Training Support Program (STSP)				

Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty (Each)	Unit Cost (\$ K)	Specs Avail Now?	Date Revision Available	RFP Issue Date
EST - Five Lane Subsystem/ Refresh		2019	Meggitt Training Systems, Inc / Suwanee, GA	Option / FFP	ACC, Orlando, FL	Apr 2019	Aug 2019	177	52.136	Y		
BEMT II Upgrades		2019	Nida Corporation / Melbourne, FL	SS / FFP	ACC, Orlando, FL	Feb 2019	Nov 2019	262	4.271	Y		
BEMT II Upgrades		2020	Nida Corporation / Melbourne, FL	Option / FFP	ACC, Orlando, FL	Feb 2020	Nov 2020	243	3.000	Y		
BEMT II Upgrades		2021	Nida Corporation / Melbourne, FL	Option / FFP	ACC, Orlando	Nov 2020	Aug 2021	91	7.846	Y		
MSTC MT-C2		2019	RIPTIDE (MSTC) MT- C2 / ORLANDO, FL	Option / FFP	ACC Orlando, FL	Jul 2019	Sep 2019	6	350.000	Y		
MSTC MT-C2		2020	RIPTIDE (MSTC) MT- C2 / ORLANDO, FL	Option / FFP	ACC Orlando	May 2020	Jul 2020	7	342.286	Y		
MSTC MT-C2		2021	RIPTIDE (MSTC) MT- C2 / ORLANDO, FL	C / FFP	GSA	Nov 2020	Jan 2021	4	299.250	Y		
MSTC TC3X		2019	KFORCE Gov't Sol. (MSTC) MATT / FAIRFAX, VA	C / IDIQ	ACC, Orlando, FL	Mar 2019	May 2019	129	34.884	Y		
MSTC TC3X		2020	KFORCE (MSTC) TC3X / FAIRFAX, VA	C / IDIQ	ACC, Orlando, FL	Mar 2020	May 2020	14	250.000	Y		
MSTC Continous Tech Refreshment		2021	TBD MSTC / TBD	C / FFP	GSA	Nov 2020	Dec 2020	4	363.250	Y		
MSTC New Site (Ft. Hood)		2021	TBD MSTC / TBD	Option / FFP	GSA	Nov 2020	Jan 2021	1	1,750.000	Y		

Remarks:
Call for Fire Trainer and Engagement Skills Trainer Programs move into sustainment in FY20.

PEO STRI = Program Executive Office for Simulation, Training and Instrumentation

Army Contracting Command, (ACC) Orlando, FL

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 70	P-1 Line Item Number / Title: 2062NA0100 / Training Devices, Nonsystem	Item Number / Title [DODIC]: NA0102 / NSTD INTELLIGENCE

ID Code (A=Service Ready, B=Not Service Ready) : A	MDAP/MAIS Code:
-----------------------------------------------------------	------------------------

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Procurement Quantity (Units in Each)	4	2	3	-	-	-
Gross/Weapon System Cost (\$ in Millions)	79.575	4.658	6.081	1.607	-	1.607
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	79.575	4.658	6.081	1.607	-	1.607
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	79.575	4.658	6.081	1.607	-	1.607

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (\$ in Millions)	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Thousands)	19,893.750	2,329.000	2,027.000	-	-	-

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
Flyaway Cost																		
Recurring Cost																		
IEWTPT TCC ^(†)	7,321.333	6	43.928	384.000	2	0.768	384.000	3	1.152	-	-	-	-	-	-	-	-	-
IEWTPT HCC	-	-	2.761	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
IEWTPT TCC - Retrofit	-	-	1.495	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PDSS	-	-	0.900	-	-	1.043	-	-	1.775	-	-	-	-	-	-	-	-	-
Concurrency	-	-	1.000	-	-	1.000	-	-	1.300	-	-	1.229	-	-	-	-	-	1.229
P3I	-	-	0.577	-	-	0.580	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Recurring Cost</i>	-	-	50.661	-	-	3.391	-	-	4.227	-	-	1.229	-	-	-	-	-	1.229
<i>Subtotal: Flyaway Cost</i>	-	-	50.661	-	-	3.391	-	-	4.227	-	-	1.229	-	-	-	-	-	1.229
Hardware Cost																		
Recurring Cost																		
Engineering for Product Improvement	-	-	18.509	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Recurring Cost</i>	-	-	18.509	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Hardware Cost</i>	-	-	18.509	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Support - Contractor Logistics Support (CLS) Cost																		
Oversight	-	-	5.341	-	-	0.900	-	-	1.854	-	-	-	-	-	-	-	-	-
<i>Subtotal: Support - Contractor Logistics Support (CLS) Cost</i>	-	-	5.341	-	-	0.900	-	-	1.854	-	-	-	-	-	-	-	-	-
Support - Program Management Cost																		

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army												Date: February 2020					
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 70						P-1 Line Item Number / Title: 2062NA0100 / Training Devices, Nonsystem						Item Number / Title [DODIC]: NA0102 / NSTD INTELLIGENCE					
ID Code (A=Service Ready, B=Not Service Ready) : A												MDAP/MAIS Code:					

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
Contractor Management	-	-	5.064	-	-	0.367	-	-	-	-	-	0.378	-	-	-	-	-	0.378
<i>Subtotal: Support - Program Management Cost</i>	-	-	5.064	-	-	0.367	-	-	-	-	-	0.378	-	-	-	-	-	0.378
Gross/Weapon System Cost	19,893.750	4	79.575	2,329.000	2	4.658	2,027.000	3	6.081	-	-	1.607	-	-	-	-	-	1.607

Remarks:

IEWTPT TCC - 3 planned deliveries and CLS to reach Full Operational Capability (FOC) in FY20.

IEWTPT Procurement in FY21 is focused on maintaining concurrency requirements.

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Army	Quantity	-	-	-	-	-
	Total Obligation Authority	-	-	1.607	-	1.607
ANG	Quantity	-	1	-	-	-
	Total Obligation Authority	-	2.027	-	-	-
AR	Quantity	2	2	-	-	-
	Total Obligation Authority	4.658	4.054	-	-	-
Total:	Quantity	2	3	-	-	-
Secondary Distribution	Total Obligation Authority	4.658	6.081	1.607	-	1.607

(t) indicates the presence of a P-5a

UNCLASSIFIED

Exhibit P-5a, Procurement History and Planning: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 70	P-1 Line Item Number / Title: 2062NA0100 / Training Devices, Nonsystem	Item Number / Title [DODIC]: NA0102 / NSTD INTELLIGENCE
----------------------------------------------------------------------------------	----------------------------------------------------------------------------------	-------------------------------------------------------------------

Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty <i>(Each)</i>	Unit Cost <i>(\$ K)</i>	Specs Avail Now?	Date Revision Available	RFP Issue Date
IEWTPT TCC		2019	General Dyn. Mission Sys Inc / Orlando, FL	Option / FFP	ACC, Orlando, FL	Feb 2019	May 2019	2	384.000	Y		
IEWTPT TCC		2020	General Dyn. Mission Sys Inc / Orlando, FL	Option / FFP	ACC, Orlando, FL	Feb 2020	May 2020	3	384.000	Y		

Remarks:

A new IEWTPT system contract was awarded in 2nd Quarter 2017 to continue and finalize system production and delivery in FY20. Maximize Commercial, Off-the-Shelf (COTS) hardware items for integration, fielding, training, hardware/software fixes and updates to the IEWTPT Technical Control Cell (TCC) system. FY 2021 Base procurement dollars in the amount of \$1.609 million supports the Intelligence Electronic Warfare Tactical Proficiency Trainer (IEWTPT) concurrency updates and system synchronization with Intelligence programs of record such as the Distributed Common Ground Station-Army (DCGS-A) capability drops, Tactical Ground Station, Aerial Intelligence, Surveillance, Reconnaissance Sensors and emerging electronic warfare (EW) and cyber electromagnetic activities (CEMA) and requirements. Increment 2 will be a software only environment and to provide training capabilities that are synchronized with for emerging Intelligence Corps system modernization priorities supporting multi-domain operations.

Army Contracting Command, (ACC) Orlando, FL

NOTES:

- (1) P-5 - Support Costs - The \$.378 in FY2021 is for contractor engineering support.
- (2) Contractor, General Dynamics, changed their name from General Dynamics C4 Sys Inc to General Dynamics Mission Sys Inc.
- (3) IEWTPT Procurement in FY21 is not to procure new TCCs, hence quantity of zero. The funding will maintain concurrency requirements for IEWTPT.
- (4) The HCC was de-scoped from IEWTPT.

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 70		P-1 Line Item Number / Title: 2062NA0100 / Training Devices, Nonsystem
		Item Number / Title [DODIC]: NA0103 / NSTD COMMAND & CONTROL

ID Code (A=Service Ready, B=Not Service Ready) : A	MDAP/MAIS Code:
-----------------------------------------------------------	------------------------

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Procurement Quantity (Units in Each)	24	15	24	23	-	23
Gross/Weapon System Cost (\$ in Millions)	472.626	38.112	35.313	35.038	-	35.038
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	472.626	38.112	35.313	35.038	-	35.038
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	472.626	38.112	35.313	35.038	-	35.038

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (\$ in Millions)	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Thousands)	19,692.750	2,540.800	1,471.375	1,523.391	-	1,523.391

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
Flyaway Cost																		
Recurring Cost																		
Flyaway Recurring: Division/Hub ^(†)	13,785.364	22	303.278	746.714	7	5.227	757.143	7	5.300	519.000	7	3.633	-	-	-	519.000	7	3.633
Flyaway Recurring: Spoke ^(†)	2,343.250	16	37.492	603.125	8	4.825	282.353	17	4.800	209.625	16	3.354	-	-	-	209.625	16	3.354
<i>Subtotal: Recurring Cost</i>	-	-	340.770	-	-	10.052	-	-	10.100	-	-	6.987	-	-	-	-	-	6.987
<i>Subtotal: Flyaway Cost</i>	-	-	340.770	-	-	10.052	-	-	10.100	-	-	6.987	-	-	-	-	-	6.987
Hardware Cost																		
Recurring Cost																		
Common Hardware Platform Refresh	-	-	23.791	-	-	6.051	-	-	5.053	-	-	7.871	-	-	-	-	-	7.871
<i>Subtotal: Recurring Cost</i>	-	-	23.791	-	-	6.051	-	-	5.053	-	-	7.871	-	-	-	-	-	7.871
<i>Subtotal: Hardware Cost</i>	-	-	23.791	-	-	6.051	-	-	5.053	-	-	7.871	-	-	-	-	-	7.871
Software Cost																		
Recurring Cost																		
Post Deployment Software Refinement	-	-	57.802	-	-	11.894	-	-	10.000	-	-	9.783	-	-	-	-	-	9.783
Pre-Planned Product Improvement (P3I)	-	-	23.808	-	-	6.098	-	-	6.100	-	-	5.006	-	-	-	-	-	5.006
<i>Subtotal: Recurring Cost</i>	-	-	81.610	-	-	17.992	-	-	16.100	-	-	14.789	-	-	-	-	-	14.789
Non Recurring Cost																		

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 70	P-1 Line Item Number / Title: 2062NA0100 / Training Devices, Nonsystem	Item Number / Title [DODIC]: NA0103 / NSTD COMMAND & CONTROL
ID Code (A=Service Ready, B=Not Service Ready) : A		MDAP/MAIS Code:

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
Constructive Strategy Implementation	-	-	5.510	-	-	3.655	-	-	3.700	-	-	4.700	-	-	-	-	-	4.700
<i>Subtotal: Non Recurring Cost</i>	-	-	5.510	-	-	3.655	-	-	3.700	-	-	4.700	-	-	-	-	-	4.700
<i>Subtotal: Software Cost</i>	-	-	87.120	-	-	21.647	-	-	19.800	-	-	19.489	-	-	-	-	-	19.489
Support - Program Management Cost																		
Government Management	-	-	20.945	-	-	0.362	-	-	0.360	-	-	0.691	-	-	-	-	-	0.691
<i>Subtotal: Support - Program Management Cost</i>	-	-	20.945	-	-	0.362	-	-	0.360	-	-	0.691	-	-	-	-	-	0.691
Gross/Weapon System Cost	19,692.750	24	472.626	2,540.800	15	38.112	1,471.375	24	35.313	1,523.391	23	35.038	-	-	-	1,523.391	23	35.038

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Army	Quantity	13	19	17	-	17
	Total Obligation Authority	27.801	23.124	22.174	-	22.174
ANG	Quantity	2	3	3	-	3
	Total Obligation Authority	3.919	6.902	7.185	-	7.185
AR	Quantity	-	2	3	-	3
	Total Obligation Authority	6.392	5.287	5.679	-	5.679
Total: Secondary Distribution	Quantity	15	24	23	-	23
	Total Obligation Authority	38.112	35.313	35.038	-	35.038

(t) indicates the presence of a P-5a

UNCLASSIFIED

Exhibit P-5a, Procurement History and Planning: PB 2021 Army							Date: February 2020				
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 70			P-1 Line Item Number / Title: 2062NA0100 / Training Devices, Nonsystem				Item Number / Title [DODIC]: NA0103 / NSTD COMMAND & CONTROL				

Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty <i>(Each)</i>	Unit Cost <i>(\$ K)</i>	Specs Avail Now?	Date Revision Available	RFP Issue Date
Flyaway Recurring: Division/Hub		2019	Phoenix Logistics, Inc / Mesa, AZ	Option / FFP	ACC, Orlando, FL	Mar 2019	Apr 2019	7	746.714	Y		
Flyaway Recurring: Division/Hub		2020	Phoenix Logistics, Inc / Mesa, AZ	Option / FFP	ACC, Orlando, FL	Nov 2019	Dec 2019	7	757.143	Y		
Flyaway Recurring: Division/Hub		2021	Phoenix Logistics, Inc / Mesa, AZ	Option / FFP	ACC, Orlando, FL	Oct 2020	Nov 2020	7	519.000	Y		
Flyaway Recurring: Spoke		2019	Phoenix Logistics, Inc / Mesa, AZ	Option / FFP	ACC, Orlando, FL	Mar 2019	Apr 2019	8	603.125	Y		
Flyaway Recurring: Spoke		2020	Phoenix Logistics, Inc / Mesa, AZ	Option / FFP	ACC, Orlando, FL	Nov 2019	Dec 2019	17	282.353	Y		
Flyaway Recurring: Spoke		2021	Phoenix Logistics, Inc / Mesa, AZ	Option / FFP	ACC, Orlando, FL	Oct 2020	Nov 2020	16	209.625	Y		

Remarks:
 Items are all commercial-off-the-shelf (COTS). Per the Resource Formulation Guidance, no P-21 is required for COTS items.
 The JLCCTC federation supports BDE/DIV & above exercises and BDE & below exercises. .
 Starting with FY 19, the program is on a 5-year CHP refresh cycle.

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 70		P-1 Line Item Number / Title: 2062NA0100 / Training Devices, Nonsystem
		Item Number / Title [DODIC]: NA0105 / NSTD RANGES AND TARGETS

ID Code (A=Service Ready, B=Not Service Ready) : A	MDAP/MAIS Code:
-----------------------------------------------------------	------------------------

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Procurement Quantity (Units in Each)	129	2	7	211	-	211
Gross/Weapon System Cost (\$ in Millions)	1,537.153	88.640	89.694	59.514	-	59.514
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	1,537.153	88.640	89.694	59.514	-	59.514
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	1,537.153	88.640	89.694	59.514	-	59.514

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (\$ in Millions)	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Thousands)	11,915.915	44,320.000	12,813.429	282.057	-	282.057

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
Flyaway Cost																		
Recurring Cost																		
DRTS Complex	205,149.833	6	1,230.899	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
DRTS CTR	-	-	25.119	-	-	34.438	-	-	-	-	-	-	-	-	-	-	-	-
DRTS DAGIR ^(†)	-	-	-	8,000.000	1	8.000	11,158.000	2	22.316	11,852.000	1	11.852	-	-	-	11,852.000	1	11.852
DRTS DMPRC CTR Tier 1	-	-	-	-	-	-	-	-	4.404	-	-	-	-	-	-	-	-	-
DRTS DMPRC CTR Tier 2	-	-	-	-	-	-	-	-	8.400	-	-	11.696	-	-	-	-	-	11.696
DRTS DMPTR CTR Tier 1	-	-	-	-	-	-	-	-	-	-	-	3.500	-	-	-	-	-	3.500
DRTS DMPTR CTR Tier 2	-	-	-	-	-	-	-	-	-	-	-	3.218	-	-	-	-	-	3.218
DRTS Unmanned Aerial System (UAS) Implementation	-	-	-	-	-	-	-	-	-	-	-	2.550	-	-	-	-	-	2.550
DRTS Integration	-	-	-	-	-	-	-	-	1.605	-	-	0.688	-	-	-	-	-	0.688
DRTS Aviation Integration	-	-	8.220	-	-	1.282	-	-	-	-	-	-	-	-	-	-	-	-
ATS Hardware ^(†)	12,676.000	7	88.732	2,253.000	1	2.253	3,000.000	3	9.000	1,400.000	4	5.600	-	-	-	1,400.000	4	5.600
ATS CTR (Lifecycle Management)	-	-	-	-	-	11.615	-	-	7.030	-	-	7.242	-	-	-	-	-	7.242

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 70		P-1 Line Item Number / Title: 2062NA0100 / Training Devices, Nonsystem
ID Code (A=Service Ready, B=Not Service Ready) : A		MDAP/MAIS Code:
Item Number / Title [DODIC]: NA0105 / NSTD RANGES AND TARGETS		

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
CTC Live Fire Mod Human Urban Target (HUT) Kits ^(†)	-	-	-	-	-	-	-	-	-	4.730	200	0.946	-	-	-	4.730	200	0.946
CTC Live Fire Mod Moving Armor Targets (MAT) Kits ^(†)	-	-	-	-	-	-	-	-	-	103.000	2	0.206	-	-	-	103.000	2	0.206
CTC Live Fire Mod Battle Effect Simulators (BES) (60 Shot) ^(†)	-	-	-	-	-	-	-	-	-	6.000	4	0.024	-	-	-	6.000	4	0.024
CTC Live Fire Mod Battle Effect Simulators (BES) (6 Shot)	-	-	-	-	-	-	-	-	-	-	-	1.884	-	-	-	-	-	1.884
CTC Live Fire Mod Machine Gun Simulators	-	-	-	-	-	-	-	-	-	-	-	0.300	-	-	-	-	-	0.300
CTC Live Fire Mod Integration	-	-	-	-	-	-	-	-	-	-	-	2.083	-	-	-	-	-	2.083
Target Modernization	-	-	22.086	-	-	4.768	-	-	7.690	-	-	5.553	-	-	-	-	-	5.553
IMTS CTR	-	-	28.855	-	-	21.761	-	-	21.629	-	-	-	-	-	-	-	-	-
IMTS CTF	-	-	12.402	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Recurring Cost</i>	-	-	1,416.313	-	-	84.117	-	-	82.074	-	-	57.342	-	-	-	-	-	57.342
Non Recurring Cost																		
UDAIRI Range Target Lifter	23,000.000	1	23.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ARCENT Thru Sight Video (TSV) ^(†)	-	-	-	-	-	-	2,106.000	1	2.106	-	-	-	-	-	-	-	-	-
Pacific Range Complex ^(†)	-	-	-	-	-	-	2,850.000	1	2.850	-	-	-	-	-	-	-	-	-
<i>Subtotal: Non Recurring Cost</i>	-	-	23.000	-	-	-	-	-	4.956	-	-	-	-	-	-	-	-	-
<i>Subtotal: Flyaway Cost</i>	-	-	1,439.313	-	-	84.117	-	-	87.030	-	-	57.342	-	-	-	-	-	57.342
Software Cost																		
Non Recurring Cost																		
European Reassurance Initiative - USAREUR - Targetry	42.857	63	2.700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 70	P-1 Line Item Number / Title: 2062NA0100 / Training Devices, Nonsystem	Item Number / Title [DODIC]: NA0105 / NSTD RANGES AND TARGETS

ID Code (A=Service Ready, B=Not Service Ready) : A	MDAP/MAIS Code:
-----------------------------------------------------------	------------------------

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
requirements for Hungary																		
<i>Subtotal: Non Recurring Cost</i>	-	-	2.700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Software Cost</i>	-	-	2.700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Support - Program Management Cost																		
Contractor Management	-	-	82.706	-	-	3.774	-	-	2.664	-	-	2.172	-	-	-	-	-	2.172
<i>Subtotal: Support - Program Management Cost</i>	-	-	82.706	-	-	3.774	-	-	2.664	-	-	2.172	-	-	-	-	-	2.172
Support - Quality Assurance Cost																		
Quality Assurance	-	-	5.615	-	-	0.334	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Support - Quality Assurance Cost</i>	-	-	5.615	-	-	0.334	-	-	-	-	-	-	-	-	-	-	-	-
Support - System Engineering Cost																		
System Engineering	-	-	6.819	-	-	0.415	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Support - System Engineering Cost</i>	-	-	6.819	-	-	0.415	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost	11,915.915	129	1,537.153	44,320.000	2	88.640	12,813.429	7	89.694	282.057	211	59.514	-	-	-	282.057	211	59.514

Remarks:
 Digital Range Training System (DRTS) CTR Tier 1 includes replacement of all information technology (IT) equipment and software loads.
 Digital Range Training System (DRTS) CTR Tier 2 includes replacement of the radio player units, field cameras, and the RF infrastructure on the range.
 In FY 2021, Combat Training Center Live Fire Modernization (CTC Live Fire Mod) was moved from SSN MA6601 to NA0105 - Ranges and Targets. On 21 April 2019, the Future Army System of Integrated Targets (FASIT) Capability Production Document was approved. After the FASIT program is formally established, it will subsume the following programs: Combat Training Center Live Fire Modernization (CTC Live Fire Mod), Target Modernization, and Army Targetry Systems (ATS).

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Army	Quantity	-	4	208	-	208
	Total Obligation Authority	78.387	70.194	55.314	-	55.314
ANG	Quantity	2	3	3	-	3
	Total Obligation Authority	10.253	19.500	4.200	-	4.200
Total:	Quantity	2	7	211	-	211

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army			Date: February 2020			
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 70		P-1 Line Item Number / Title: 2062NA0100 / Training Devices, Nonsystem		Item Number / Title [DODIC]: NA0105 / NSTD RANGES AND TARGETS		
ID Code (A=Service Ready, B=Not Service Ready) : A			MDAP/MAIS Code:			
Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Secondary Distribution	Total Obligation Authority	88.640	89.694	59.514	-	59.514

(t) indicates the presence of a P-5a

UNCLASSIFIED

Exhibit P-5a, Procurement History and Planning: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 70	P-1 Line Item Number / Title: 2062NA0100 / Training Devices, Nonsystem	Item Number / Title [DODIC]: NA0105 / NSTD RANGES AND TARGETS
----------------------------------------------------------------------------------	----------------------------------------------------------------------------------	-------------------------------------------------------------------------

Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty <i>(Each)</i>	Unit Cost <i>(\$ K)</i>	Specs Avail Now?	Date Revision Available	RFP Issue Date
DRTS DAGIR ^(†)		2019	Lockheed Martin (DRTS) / Orlando, FL 32825	C / FFP	ACC, Orlando, FL	Mar 2019	Mar 2020	1	8,000.000	Y		Dec 2018
DRTS DAGIR ^(†)		2020	Lockheed Martin (DRTS) / Orlando, FL 32825	Option / FFP	ACC, Orlando, FL	Mar 2020	Mar 2021	2	11,158.000	Y		Aug 2018
DRTS DAGIR ^(†)		2021	Lockheed Martin (DRTS) / Orlando, FL 32825	Option / FFP	ACC, Orlando, FL	Mar 2021	Mar 2022	1	11,852.000	Y		
ATS Hardware ^(†)		2019	TBS (ATS HW) / TBS	C / IDIQ	ACC, Warren, MI	Feb 2019	Jul 2019	1	2,253.000	Y		
ATS Hardware ^(†)		2020	TBS (ATS HW) / TBS	C / IDIQ	ACC, Warren, MI	Feb 2020	Jul 2020	3	3,000.000	Y		
ATS Hardware ^(†)		2021	TBS (ATS HW) / TBS	C / IDIQ	ACC, Warren, MI	Feb 2021	Jul 2021	4	1,400.000	Y		
CTC Live Fire Mod Human Urban Target (HUT) Kits		2021	TBS (CTC Live Fire Mod) / DLA, Philadelphia, PA	C / IDIQ	DLA, Philadelphia, PA	Feb 2021	Dec 2021	200	4.730	Y		
CTC Live Fire Mod Moving Armor Targets (MAT) Kits		2021	TBS (CTC Live Fire Mod) / DLA, Philadelphia, PA	C / IDIQ	DLA, Philadelphia, PA	Feb 2021	Sep 2021	2	103.000	Y		
CTC Live Fire Mod Battle Effect Simulators (BES) (60 Shot)		2021	TBS (CTC Live Fire Mod) / TBS	C / IDIQ	ACC, Orlando, FL	Apr 2021	Oct 2021	4	6.000	Y		
ARCENT Thru Sight Video (TSV)		2020	TBS (ARCENT TSV) / Orlando, FL 32825	SS / FFP	ACC, Orlando, FL	Mar 2020	Aug 2020	1	2,106.000	Y		Nov 2019
Pacific Range Complex		2020	TBS (Pacific Range Complex) / Orlando, FL 32825	C / FFP	ACC, Orlando, FL	Mar 2020	Aug 2020	1	2,850.000	Y		

^(†) indicates the presence of a P-21

Remarks:

* ATS contractors are Meggitt Training Systems, Inc., Suwanee, GA; SAAB Defense and Security USA, LLC, Orlando, FL; Strategic Systems, Inc., Columbus, OH; Sius Target Systems U.S.A., Inc., Irmo, SC; Theissen Training Systems, Inc., Chiefland, FL. Long term IDIQ contracts have been negotiated with all five sources. Contract awards will be made in some combination to some or all of these sources.

Army Contracting Command, (ACC) Orlando, FL

UNCLASSIFIED

Exhibit P-21, Production Schedule: PB 2021 Army															Date: February 2020														
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 70										P-1 Line Item Number / Title: 2062NA0100 / Training Devices, Nonsystem										Item Number / Title [DODIC]: NA0105 / NSTD RANGES AND TARGETS									

Cost Elements <i>(Units in Each)</i>						Fiscal Year 2021													Fiscal Year 2022													BALANCE	
O C O #	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2020	BAL DUE AS OF 1 OCT	Calendar Year 2021													Calendar Year 2022													
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P			
DRTS DAGIR																																	
1		2019	ARMY	1	1	0																							0				
1		2020	ARMY	2	0	2	-	-	-	-	-	1	1																0				
1		2021	ARMY	1	0	1																						1	0				
ATS Hardware																																	
Prior Years Deliveries: 7																																	
2		2019	ARMY	1	1	0																							0				
2		2020	ARMY	3	3	0																							0				
2		2021	ARMY	4	0	4																							0				
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P			

UNCLASSIFIED

Exhibit P-21, Production Schedule: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 70		P-1 Line Item Number / Title: 2062NA0100 / Training Devices, Nonsystem
		Item Number / Title [DODIC]: NA0105 / NSTD RANGES AND TARGETS

MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Year)			Procurement Leadtime (Months)							
		MSR For 2021	1-8-5 For 2021	MAX For 2021	Initial				Reorder			
					ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1	ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1
1	Lockheed Martin (DRTS) - Orlando, FL 32825	1	3	5	0	9	13	22	0	5	13	18
2	TBS (ATS HW) - TBS	1	48	120	0	4	6	10	0	4	6	10

"A" in the Delivery Schedule indicates the Contract Award Date.

Note: Due to space limitations, quantities in the Exhibit P-21 delivery calendar are truncated and rounded based on the maximum quantity in the calendar as follows. If the maximum quantity is less than or equal to than 9,999, all quantities are shown as each. If the maximum quantity is between 10,000 and 999,999 all quantities are shown in thousands. If the maximum quantity is between 1,000,000 and 999,999,999 all quantities are shown in millions (rounded to the nearest thousand). If the maximum quantity is equal or greater than 1,000,000,000 all quantities are shown in billions (rounded to the nearest million).

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 70		P-1 Line Item Number / Title: 2062NA0100 / Training Devices, Nonsystem
		Item Number / Title [DODIC]: NA0106 / NSTD Battle Command Training Center Support Prg

ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:
---------------------------------------------------------	------------------------

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Procurement Quantity (Units in Each)	37	18	16	13	-	13
Gross/Weapon System Cost (\$ in Millions)	376.872	20.005	18.985	14.405	-	14.405
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	376.872	20.005	18.985	14.405	-	14.405
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	376.872	20.005	18.985	14.405	-	14.405

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (\$ in Millions)	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Thousands)	10,185.730	1,111.389	1,186.563	1,108.077	-	1,108.077

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
Flyaway Cost																		
Recurring Cost																		
MCTC Furniture, Fixture & Equipment	35,033.750	8	280.270	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Furniture, Fixtures & Equipment Refresh ^(†)	1,547.000	15	23.205	1,894.667	3	5.684	2,584.000	3	7.752	2,170.000	3	6.510	-	-	-	2,170.000	3	6.510
Mission Command Equipment - Hardware ^(†)	897.421	19	17.051	751.571	7	5.261	775.000	5	3.875	800.000	3	2.400	-	-	-	800.000	3	2.400
Battlefield Visualization ^(†)	1,645.000	3	4.935	1,621.000	1	1.621	354.000	4	1.416	340.000	3	1.020	-	-	-	340.000	3	1.020
DIACAP / RMF ^(†)	2,238.938	16	35.823	1,383.000	4	5.532	1,382.000	3	4.146	1,075.000	3	3.225	-	-	-	1,075.000	3	3.225
ESS Services ^(†)	1,643.750	8	13.150	423.000	3	1.269	1,372.000	1	1.372	1,050.000	1	1.050	-	-	-	1,050.000	1	1.050
<i>Subtotal: Recurring Cost</i>	<i>-</i>	<i>-</i>	<i>374.434</i>	<i>-</i>	<i>-</i>	<i>19.367</i>	<i>-</i>	<i>-</i>	<i>18.561</i>	<i>-</i>	<i>-</i>	<i>14.205</i>	<i>-</i>	<i>-</i>	<i>-</i>	<i>-</i>	<i>-</i>	<i>14.205</i>
<i>Subtotal: Flyaway Cost</i>	<i>-</i>	<i>-</i>	<i>374.434</i>	<i>-</i>	<i>-</i>	<i>19.367</i>	<i>-</i>	<i>-</i>	<i>18.561</i>	<i>-</i>	<i>-</i>	<i>14.205</i>	<i>-</i>	<i>-</i>	<i>-</i>	<i>-</i>	<i>-</i>	<i>14.205</i>
Support - Program Management Cost																		
Government Management	-	-	2.438	-	-	0.638	-	-	0.424	-	-	0.200	-	-	-	-	-	0.200
<i>Subtotal: Support - Program Management Cost</i>	<i>-</i>	<i>-</i>	<i>2.438</i>	<i>-</i>	<i>-</i>	<i>0.638</i>	<i>-</i>	<i>-</i>	<i>0.424</i>	<i>-</i>	<i>-</i>	<i>0.200</i>	<i>-</i>	<i>-</i>	<i>-</i>	<i>-</i>	<i>-</i>	<i>0.200</i>
Gross/Weapon System Cost	10,185.730	37	376.872	1,111.389	18	20.005	1,186.563	16	18.985	1,108.077	13	14.405	-	-	-	1,108.077	13	14.405

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 70	P-1 Line Item Number / Title: 2062NA0100 / Training Devices, Nonsystem	Item Number / Title [DODIC]: NA0106 / NSTD Battle Command Training Center Support Prg

ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:
---------------------------------------------------------	------------------------

Remarks:
Variations in unit cost are because of differences in the size of the site being modernized in any given year. Larger sites require more equipment, and therefore have a higher unit cost.

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Army	Quantity	18	14	11	-	11
	Total Obligation Authority	20.005	16.651	12.963	-	12.963
ANG	Quantity	-	1	1	-	1
	Total Obligation Authority	-	1.167	0.721	-	0.721
AR	Quantity	-	1	1	-	1
	Total Obligation Authority	-	1.167	0.721	-	0.721
Total: Secondary Distribution	Quantity	18	16	13	-	13
	Total Obligation Authority	20.005	18.985	14.405	-	14.405

(t) indicates the presence of a P-5a

UNCLASSIFIED

Exhibit P-5a, Procurement History and Planning: PB 2021 Army							Date: February 2020				
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 70			P-1 Line Item Number / Title: 2062NA0100 / Training Devices, Nonsystem				Item Number / Title [DODIC]: NA0106 / NSTD Battle Command Training Center Support Prg				

Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty (Each)	Unit Cost (\$ K)	Specs Avail Now?	Date Revision Available	RFP Issue Date
Furniture, Fixtures & Equipment Refresh		2019	Phoenix Logistics Inc. / Mesa, Arizona	C / FFP	ACC Orlando, FL	Sep 2019	Jan 2020	3	1,894.667	Y		
Furniture, Fixtures & Equipment Refresh		2020	Phoenix Logistics Inc. / Mesa, Arizona	C / FFP	ACC Orlando, FL	Jan 2020	Mar 2020	3	2,584.000	Y		
Furniture, Fixtures & Equipment Refresh		2021	Phoenix Logistics Inc. / Mesa, Arizona	C / FFP	ACC Orlando, FL	Jan 2021	Mar 2021	3	2,170.000	Y		
Mission Command Equipment - Hardware		2019	PEO C3T / APG- North, MD	MIPR	ACC APG MD	Jun 2019	Sep 2019	7	751.571	Y		
Mission Command Equipment - Hardware		2020	PEO C3T / APG- North, MD	MIPR	ACC APG MD	Jun 2020	Sep 2020	5	775.000	Y		
Mission Command Equipment - Hardware		2021	PEO C3T / APG- North, MD	MIPR	ACC APG MD	Jun 2021	Sep 2021	3	800.000	Y		
Battlefield Visualization		2019	PEO C3T / APG- North, MD	MIPR	ACC APG MD	Aug 2019	Feb 2020	1	1,621.000	Y		
Battlefield Visualization		2020	PEO C3T / APG- North, MD	MIPR	ACC APG MD	Jun 2020	Sep 2020	4	354.000	Y		
Battlefield Visualization		2021	PEO C3T / APG- North, MD	MIPR	ACC APG MD	Jun 2021	Sep 2021	3	340.000	Y		
DIACAP / RMF		2019	Phoenix Logistics Inc. / Mesa, Arizona	C / FFP	ACC Orlando, FL	Sep 2019	Jan 2020	4	1,383.000	Y		
DIACAP / RMF		2020	Phoenix Logistics Inc. / Mesa, Arizona	C / FFP	ACC Orlando, FL	Jan 2020	Mar 2020	3	1,382.000	Y		
DIACAP / RMF		2021	Phoenix Logistics Inc. / Mesa, Arizona	C / FFP	ACC Orlando, FL	Jan 2021	Mar 2021	3	1,075.000	Y		
ESS Services		2019	USACE / AL	MIPR	USACE Huntsville, AL	Sep 2019	Sep 2020	3	423.000	Y		
ESS Services		2020	USACE / AL	MIPR	USACE Huntsville, AL	Oct 2019	Oct 2020	1	1,372.000	Y		
ESS Services		2021	USACE / AL	MIPR	USACE Huntsville, AL	Oct 2020	Oct 2021	1	1,050.000	Y		

Remarks:
Items are COTS. Per the Resource Formulation Guidance, no P-21 is required for COTS items.

New Contract was awarded in 1QFY19.

Army Contracting Command, (ACC) Orlando, FL

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 70	P-1 Line Item Number / Title: 2062NA0100 / Training Devices, Nonsystem	Item Number / Title [DODIC]: NA0110 / NSTD - Live Training

ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:
---------------------------------------------------------	------------------------

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Procurement Quantity (Units in Each)	-	-	-	4	-	4
Gross/Weapon System Cost (\$ in Millions)	-	-	-	9.845	-	9.845
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	-	-	-	9.845	-	9.845
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	-	-	-	9.845	-	9.845

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (\$ in Millions)	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Thousands)	-	-	-	2,461.250	-	2,461.250

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
Flyaway Cost																		
Recurring Cost																		
Soldier Monitoring System (SMS) ^(†)	-	-	-	-	-	-	-	-	-	1,220.250	4	4.881	-	-	-	1,220.250	4	4.881
Joint Pacific Multinational Readiness Capability-Instrumentation System (JPMRC-IS) PDSS	-	-	-	-	-	-	-	-	-	-	-	1.020	-	-	-	-	-	1.020
Home Station Instrumentation Training System (HITS) PDSS/CTR	-	-	-	-	-	-	-	-	-	-	-	3.095	-	-	-	-	-	3.095
<i>Subtotal: Recurring Cost</i>	-	-	-	-	-	-	-	-	-	-	-	8.996	-	-	-	-	-	8.996
<i>Subtotal: Flyaway Cost</i>	-	-	-	-	-	-	-	-	-	-	-	8.996	-	-	-	-	-	8.996
Support - Program Management Cost																		
Contractor Management	-	-	-	-	-	-	-	-	-	-	-	0.849	-	-	-	-	-	0.849
<i>Subtotal: Support - Program Management Cost</i>	-	-	-	-	-	-	-	-	-	-	-	0.849	-	-	-	-	-	0.849
Gross/Weapon System Cost	-	-	-	-	-	-	-	-	-	2,461.250	4	9.845	-	-	-	2,461.250	4	9.845

Remarks:

In FY 2021, Home Station Instrumentation Training System (HITS), Joint Pacific Multinational Readiness Capability-Instrumentation System (JPMRC-IS), and Soldier Monitoring System (SMS) were moved from SSN NA0101 to NA0110 ? NSTD LIVE Training.

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 70	P-1 Line Item Number / Title: 2062NA0100 / Training Devices, Nonsystem	Item Number / Title [DODIC]: NA0110 / NSTD - Live Training
ID Code (A=Service Ready, B=Not Service Ready) :		MDAP/MAIS Code:

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Army	Quantity	-	-	4	-	4
	Total Obligation Authority	-	-	9.845	-	9.845
Total: Secondary Distribution	Quantity	-	-	4	-	4
	Total Obligation Authority	-	-	9.845	-	9.845

(t) indicates the presence of a P-5a

UNCLASSIFIED

Exhibit P-5a, Procurement History and Planning: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 70	P-1 Line Item Number / Title: 2062NA0100 / Training Devices, Nonsystem	Item Number / Title [DODIC]: NA0110 / NSTD - Live Training
----------------------------------------------------------------------------------	----------------------------------------------------------------------------------	----------------------------------------------------------------------

Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty <i>(Each)</i>	Unit Cost <i>(\$ K)</i>	Specs Avail Now?	Date Revision Available	RFP Issue Date
Soldier Monitoring System (SMS)		2021	TBD - SMS / TBD	SS / FFP	ACC, Orlando	Jan 2021	Sep 2021	4	1,220.250	Y		Oct 2020

Remarks:
Soldier Monitoring System- new Program of Record in FY2021.

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 70		P-1 Line Item Number / Title: 2062NA0100 / Training Devices, Nonsystem
		Item Number / Title [DODIC]: NA0116 / NSTD- MILES

ID Code (A=Service Ready, B=Not Service Ready) :				MDAP/MAIS Code:					
Resource Summary				Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Procurement Quantity (Units in Each)				23,897	498	819	1,559	-	1,559
Gross/Weapon System Cost (\$ in Millions)				518.391	13.487	28.488	26.105	-	26.105
Less PY Advance Procurement (\$ in Millions)				-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)				518.391	13.487	28.488	26.105	-	26.105
Plus CY Advance Procurement (\$ in Millions)				-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)				518.391	13.487	28.488	26.105	-	26.105
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>									
Initial Spares (\$ in Millions)				-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Thousands)				21.693	27.082	34.784	16.745	-	16.745

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
Flyaway Cost																		
Recurring Cost																		
MILES Individual Weapon System (IWS)	5.135	59,036	303.174	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MILES Tactical Vehicle System (TVS)	11.107	1,000	11.107	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
I-MILES Vehicle TESS (V-TESS) ^(†)	11.596	8,506	98.635	11.775	498	5.864	17.137	473	8.106	-	-	-	-	-	-	-	-	-
MILES CVTESS	25.439	1,758	44.721	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MILES Tech Refresh	-	-	8.827	-	-	3.227	-	-	3.930	-	-	3.503	-	-	-	-	-	3.503
MILES ECPs	-	-	11.014	-	-	1.700	-	-	5.500	-	-	1.000	-	-	-	-	-	1.000
MILES Initial Spares	-	-	1.600	-	-	-	-	-	3.844	-	-	-	-	-	-	-	-	-
WITS Kits ^(†)	-	-	-	-	-	-	12.009	346	4.155	12.019	1,559	18.738	-	-	-	12.019	1,559	18.738
<i>Subtotal: Recurring Cost</i>	-	-	<i>479.078</i>	-	-	<i>10.791</i>	-	-	<i>25.535</i>	-	-	<i>23.241</i>	-	-	-	-	-	<i>23.241</i>
<i>Subtotal: Flyaway Cost</i>	-	-	<i>479.078</i>	-	-	<i>10.791</i>	-	-	<i>25.535</i>	-	-	<i>23.241</i>	-	-	-	-	-	<i>23.241</i>
Software Cost																		
Recurring Cost																		
MILES PDSS	-	-	1.146	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Recurring Cost</i>	-	-	<i>1.146</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Software Cost</i>	-	-	<i>1.146</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Support - Fielding Cost																		
Fielding	-	-	-	-	-	-	-	-	0.364	-	-	0.275	-	-	-	-	-	0.275

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army												Date: February 2020					
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 70						P-1 Line Item Number / Title: 2062NA0100 / Training Devices, Nonsystem						Item Number / Title [DODIC]: NA0116 / NSTD- MILES					
ID Code (A=Service Ready, B=Not Service Ready) :												MDAP/MAIS Code:					

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
<i>Subtotal: Support - Fielding Cost</i>	-	-	-	-	-	-	-	-	0.364	-	-	0.275	-	-	-	-	-	0.275
Support - Program Management Cost																		
Contractor Management	-	-	30.693	-	-	2.696	-	-	2.254	-	-	2.254	-	-	-	-	-	2.254
<i>Subtotal: Support - Program Management Cost</i>	-	-	30.693	-	-	2.696	-	-	2.254	-	-	2.254	-	-	-	-	-	2.254
Support - System Engineering Cost																		
System Engineering	-	-	7.496	-	-	-	-	-	0.335	-	-	0.335	-	-	-	-	-	0.335
<i>Subtotal: Support - System Engineering Cost</i>	-	-	7.496	-	-	-	-	-	0.335	-	-	0.335	-	-	-	-	-	0.335
Gross/Weapon System Cost	21.693	23,897	518.391	27.082	498	13.487	34.784	819	28.488	16.745	1,559	26.105	-	-	-	16.745	1,559	26.105

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Army	Quantity	498	819	1,559	-	1,559
	Total Obligation Authority	13.487	28.488	26.105	-	26.105
Total: Secondary Distribution	Quantity	498	819	1,559	-	1,559
	Total Obligation Authority	13.487	28.488	26.105	-	26.105

(†) indicates the presence of a P-5a

UNCLASSIFIED

Exhibit P-5a, Procurement History and Planning: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 70	P-1 Line Item Number / Title: 2062NA0100 / Training Devices, Nonsystem	Item Number / Title [DODIC]: NA0116 / NSTD- MILES
----------------------------------------------------------------------------------	----------------------------------------------------------------------------------	-------------------------------------------------------------

Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty <i>(Each)</i>	Unit Cost <i>(\$ K)</i>	Specs Avail Now?	Date Revision Available	RFP Issue Date
I-MILES Vehicle TESS (V-TESS)		2019	Lockheed Martin Corporation (V-TESS) / Orlando, FL	Option / FFP	ACC, Orlando, FL	May 2019	May 2020	498	11.775	Y		
I-MILES Vehicle TESS (V-TESS)		2020	Lockheed Martin Corporation (V-TESS) / Orlando, FL	Option / FFP	ACC, Orlando, FL	May 2020	May 2021	473	17.137	Y		
WITS Kits ^(†)		2020	Lockheed Martin Corporation (WITS) / Orlando, FL	Option / FFP	ACC, Orlando, FL	May 2020	May 2021	346	12.009	Y		
WITS Kits ^(†)		2021	Lockheed Martin Corporation (WITS) / Orlando, FL	Option / FFP	ACC, Orlando FL	Nov 2020	Nov 2021	1,559	12.019	Y		

^(†) indicates the presence of a P-21

Remarks:
Army Contracting Command, (ACC) Orlando, FL

UNCLASSIFIED

Exhibit P-21, Production Schedule: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 70	P-1 Line Item Number / Title: 2062NA0100 / Training Devices, Nonsystem	Item Number / Title [DODIC]: NA0116 / NSTD- MILES
----------------------------------------------------------------------------------	----------------------------------------------------------------------------------	-------------------------------------------------------------

Cost Elements <i>(Units in Each)</i>						Fiscal Year 2019												Fiscal Year 2020												BALANCE				
O C C #	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2018	BAL DUE AS OF 1 OCT	Calendar Year 2019												Calendar Year 2020															
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G		S E P			
WITS Kits																																		
	1	2020	ARMY	346	0	346																							A -	-	-	-	-	346
	1	2021	ARMY	1,559	0	1,559																												1,559
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P				

UNCLASSIFIED

Exhibit P-21, Production Schedule: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 70 **P-1 Line Item Number / Title:** 2062NA0100 / Training Devices, Nonsystem **Item Number / Title [DODIC]:** NA0116 / NSTD- MILES

Cost Elements <i>(Units in Each)</i>							Fiscal Year 2023										Fiscal Year 2024										BALANCE			
O C C #	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2022	BAL DUE AS OF 1 OCT	Calendar Year 2023										Calendar Year 2024													
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y		J U N	J U L	A U G
WITS Kits																														
	1	2020	ARMY	346	346	0																							0	
	1	2021	ARMY	1,559	1,430	129	129																						0	
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P

UNCLASSIFIED

Exhibit P-21, Production Schedule: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 70	P-1 Line Item Number / Title: 2062NA0100 / Training Devices, Nonsystem	Item Number / Title [DODIC]: NA0116 / NSTD- MILES
----------------------------------------------------------------------------------	----------------------------------------------------------------------------------	-------------------------------------------------------------

MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Year)			Procurement Leadtime (Months)							
		MSR For 2021	1-8-5 For 2021	MAX For 2021	Initial				Reorder			
					ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1	ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1
1	Lockheed Martin Corporation (WITS) - Orlando, FL	300	750	10,000	0	17	19	36	0	1	13	14

Remarks:
I-MILES CVTESS production completed with FY16 PB Funds. I-MILES Individual Weapon System (IWS) production completed with FY17 PB Funds. I-MILES Vehicle TESS (V-TESS) production completed with FY16-FY19 Funds.

"A" in the Delivery Schedule indicates the Contract Award Date.
Note: Due to space limitations, quantities in the Exhibit P-21 delivery calendar are truncated and rounded based on the maximum quantity in the calendar as follows. If the maximum quantity is less than or equal to than 9,999, all quantities are shown as each. If the maximum quantity is between 10,000 and 999,999 all quantities are shown in thousands. If the maximum quantity is between 1,000,000 and 999,999,999 all quantities are shown in millions (rounded to the nearest thousand). If the maximum quantity is equal or greater than 1,000,000,000 all quantities are shown in billions (rounded to the nearest million).

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 70		P-1 Line Item Number / Title: 2062NA0100 / Training Devices, Nonsystem
		Item Number / Title [DODIC]: NA0121 / NSTD - LVC ARCHITECTURE

ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:
---------------------------------------------------------	------------------------

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Procurement Quantity (Units in Each)	13	7	7	7	-	7
Gross/Weapon System Cost (\$ in Millions)	91.461	8.081	8.353	10.166	-	10.166
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	91.461	8.081	8.353	10.166	-	10.166
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	91.461	8.081	8.353	10.166	-	10.166

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (\$ in Millions)	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Thousands)	7,035.462	1,154.429	1,193.286	1,452.286	-	1,452.286

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
Flyaway Cost																		
Recurring Cost																		
CTIA Modifications	-	-	1.523	-	-	0.775	-	-	0.694	-	-	0.815	-	-	-	-	-	0.815
CTIA Continuous Tech Refresh	-	-	0.890	-	-	0.300	-	-	0.300	-	-	0.362	-	-	-	-	-	0.362
LVC-IA Fieldings	445.667	12	5.348	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LVC New Equipment Training	-	-	3.044	-	-	0.180	-	-	0.094	-	-	0.195	-	-	-	-	-	0.195
LVC-IA Spares	-	-	0.429	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LVC-IA Site Support	-	-	1.780	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Recurring Cost	-	-	13.014	-	-	1.255	-	-	1.088	-	-	1.372	-	-	-	-	-	1.372
Non Recurring Cost																		
LVC-IA Version Upgrade/ Tech Refresh ^(†)	451.706	17	7.679	387.600	5	1.938	309.400	5	1.547	629.800	5	3.149	-	-	-	629.800	5	3.149
Subtotal: Non Recurring Cost	-	-	7.679	-	-	1.938	-	-	1.547	-	-	3.149	-	-	-	-	-	3.149
Subtotal: Flyaway Cost	-	-	20.693	-	-	3.193	-	-	2.635	-	-	4.521	-	-	-	-	-	4.521
Software Cost																		
Recurring Cost																		
LVC-IA PDSS ^(†)	1,268.250	16	20.292	944.000	2	1.888	1,038.000	2	2.076	1,112.000	2	2.224	-	-	-	1,112.000	2	2.224
LVC-IA Core System Integration	-	-	7.428	-	-	-	-	-	0.647	-	-	0.684	-	-	-	-	-	0.684
CTIA PDSS	-	-	18.756	-	-	1.718	-	-	1.853	-	-	1.697	-	-	-	-	-	1.697

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 70		P-1 Line Item Number / Title: 2062NA0100 / Training Devices, Nonsystem
ID Code (A=Service Ready, B=Not Service Ready) :		MDAP/MAIS Code:
Item Number / Title [DODIC]: NA0121 / NSTD - LVC ARCHITECTURE		

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
<i>Subtotal: Recurring Cost</i>	-	-	46.476	-	-	3.606	-	-	4.576	-	-	4.605	-	-	-	-	-	4.605
<i>Subtotal: Software Cost</i>	-	-	46.476	-	-	3.606	-	-	4.576	-	-	4.605	-	-	-	-	-	4.605
Support - Program Management Cost																		
Contractor Management	-	-	23.642	-	-	1.282	-	-	1.142	-	-	1.040	-	-	-	-	-	1.040
<i>Subtotal: Support - Program Management Cost</i>	-	-	23.642	-	-	1.282	-	-	1.142	-	-	1.040	-	-	-	-	-	1.040
Support - System Technical Support (STS) Cost																		
System Technical Support (STS)	-	-	0.650	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Support - System Technical Support (STS) Cost</i>	-	-	0.650	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost	7,035.462	13	91.461	1,154.429	7	8.081	1,193.286	7	8.353	1,452.286	7	10.166	-	-	-	1,452.286	7	10.166

Remarks:

In FY21, deliveries will begin for Version 4. The increase in unit cost for LVC-IA Version Upgrades/Tech Refresh is due to the additional integration requirements for Synthetic Training Environment (STE).

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Army	Quantity	7	7	7	-	7
	Total Obligation Authority	8.081	8.353	10.166	-	10.166
Total:	Quantity	7	7	7	-	7
Secondary Distribution	Total Obligation Authority	8.081	8.353	10.166	-	10.166

(†) indicates the presence of a P-5a

UNCLASSIFIED

Exhibit P-5a, Procurement History and Planning: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 70	P-1 Line Item Number / Title: 2062NA0100 / Training Devices, Nonsystem	Item Number / Title [DODIC]: NA0121 / NSTD - LVC ARCHITECTURE
----------------------------------------------------------------------------------	----------------------------------------------------------------------------------	-------------------------------------------------------------------------

Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty <i>(Each)</i>	Unit Cost <i>(\$ K)</i>	Specs Avail Now?	Date Revision Available	RFP Issue Date
LVC-IA Version Upgrade/ Tech Refresh		2019	Cole Engineering Services (T) / Orlando	C / CPFF	ACC Orlando, FL	Dec 2018	Feb 2019	5	387.600	Y		
LVC-IA Version Upgrade/ Tech Refresh		2020	Cole Engineering Services (T) / Orlando	C / CPFF	ACC Orlando, FL	Jun 2020	Aug 2020	5	309.400	Y		
LVC-IA Version Upgrade/ Tech Refresh		2021	Cole Engineering Services (T) / Orlando	C / CPFF	ACC Orlando, FL	Nov 2020	Jan 2021	5	629.800	Y		
LVC-IA PDSS		2019	Cole Engineering Services (P) / Orlando	C / CPFF	ACC Orlando, FL	Dec 2018	Mar 2019	2	944.000	Y		
LVC-IA PDSS		2020	Cole Engineering Services (P) / Orlando	C / CPFF	ACC Orlando, FL	Jun 2020	Aug 2020	2	1,038.000	Y		
LVC-IA PDSS		2021	Cole Engineering Services (P) / Orlando	C / CPFF	ACC Orlando, FL	Nov 2020	Jan 2021	2	1,112.000	Y		

Remarks:
 In FY20, deliveries to upgrade from Version 2 to Version 3 will be completed.
 In FY21, deliveries will begin for Version 4. The increase in unit cost for LVC-IA Version Upgrades/Tech Refresh is due to the additional integration requirements for Synthetic Training Environment (STE).

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 70: Training Equipment	P-1 Line Item Number / Title: 2079NA2000 / Synthetic Training Environment (STE)
---------------------------------------------------------------------------------------------------------------------------------------------------------------	-------------------------------------------------------------------------------------------

ID Code (A=Service Ready, B=Not Service Ready):	Program Elements for Code B Items: N/A	Other Related Program Elements: 0604121A
--------------------------------------------------------	-----------------------------------------------	-------------------------------------------------

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	72	17	-	17	49	51	46	47	Continuing	Continuing
Gross/Weapon System Cost (<i>\$ in Millions</i>)	-	-	14.449	13.063	-	13.063	74.077	73.024	66.750	67.590	Continuing	Continuing
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	-	-	14.449	13.063	-	13.063	74.077	73.024	66.750	67.590	Continuing	Continuing
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	-	-	14.449	13.063	-	13.063	74.077	73.024	66.750	67.590	Continuing	Continuing

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Thousands</i>)	-	-	200.681	768.412	-	768.412	1,511.776	1,431.843	1,451.087	1,438.085	Continuing	Continuing

Description:

The Synthetic Training Environment (STE) is the next generation holistic collective training capability that will train units where they will fight, with whom they will fight with, and in complex operational environments to include dense urban and sub-terrain; within the entire range of combined arms maneuver tasks in support of Multi-Domain Operations. STE remains a pre-acquisition effort managed through Other Transactional Agreements (OTAs) Initial Operating Capability (IOC). This collective training capability will revolutionize Army training by providing the repetition and sets necessary to achieve improved proficiency prior to live training; thereby improving Soldier lethality and survivability and will be available where training occurs (home station, combat training centers, armories, institutions, shipboard, deployed).

STE is comprised of three main Lines of Effort: STE-Information System; Reconfigurable Virtual Collective Trainers (RVCT); and Soldier / Squad Virtual Trainer (SSVT). STE-IS (delivers the Common Synthetic Environment consisting of Global Terrain/One World Terrain (OWT), Training Simulation Software (TSS), and Training Management Tools (TMT). STE-IS serves as the software platform that enables the hardware components of the Soldier Virtual Interface Devices; RVCT and S/SVT. Procurement supports the integrated fielding and cloud computing structure of the STE-IS baseline. The RVCT Air and Ground (RVCT A/G) will collectively train units, using proponent developed Combined Arms Training Strategies (CATS), on a simulated, fully interactive, real time battlefield. RVCT serves as a prototype through IOC fielding to one location; Ft. Hood in FY21. Full Operational Capability (FOC) begins deployment for RVCT Air and Ground units in FY22 with procurement funding. S/SVT is broken into Squad Immersive Virtual Trainer (SiVT) and Soldier Virtual Trainer (SVT). SiVT via the Integrated Visual Augmentation System (IVAS) provides initial squad training capability for S/SVT in Increment 1. Soldier Virtual Interface Devices are required to support the training capabilities of the First Unit Equipped (FUE) in 4th QTR FY2021 and IOC in 1st QTR FY2022. Training mode peripheral "kits" will be deployed in support of the overarching Soldier Lethality IVAS capability to meet close combat lethality fight, rehearse, train capabilities starting in FY21. SVT will provide STE Squad Capability, Weapons Skills Development, Joint Fires Training and Use of Force. Future lines of effort under market research include the integration of Live training and Next Generation Constructive.

Secondary Distribution	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	
Army	Quantity	-	54	13	-	13	30	33	32	32
	Total Obligation Authority	-	10.869	12.040	-	12.040	46.159	46.375	43.261	43.490
ANG	Quantity	-	18	4	-	4	19	18	14	15
	Total Obligation Authority	-	3.580	1.023	-	1.023	27.918	26.649	23.489	24.100
Total:	Quantity	-	72	17	-	17	49	51	46	47

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 70: Training Equipment	P-1 Line Item Number / Title: 2079NA2000 / Synthetic Training Environment (STE)
------------------------------------------------------------------------------------------------------------------------------------------------------------------	-------------------------------------------------------------------------------------------

ID Code (A=Service Ready, B=Not Service Ready):	Program Elements for Code B Items: N/A	Other Related Program Elements: 0604121A
--------------------------------------------------------	-----------------------------------------------	-------------------------------------------------

Line Item MDAP/MAIS Code: N/A

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
Secondary Distribution	Total Obligation Authority	-	14.449	13.063	-	13.063	74.077	73.024	66.750	67.590

--	--	--	--	--	--	--	--	--	--	--

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity:
2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 70: Training Equipment

P-1 Line Item Number / Title:
2079NA2000 / Synthetic Training Environment (STE)

ID Code (A=Service Ready, B=Not Service Ready): **Program Elements for Code B Items:** N/A **Other Related Program Elements:** 0604121A

Line Item MDAP/MAIS Code: N/A

Exhibits Schedule					Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-5	NA2020 / Synthetic Training Environment (STE)	P-5a			- / -	- / -	72 / 14.449	17 / 13.063	- / -	17 / 13.063
P-40	Total Gross/Weapon System Cost				- / -	- / -	72 / 14.449	17 / 13.063	- / -	17 / 13.063

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

Justification:
FY 2020/2021 Base procurement dollars funds the hardware associated with the Soldier Virtual Interface Devices needed for FUE in 4th QTR FY2021 and IOC in 1st QTR 2022, fielding support for Synthetic Training Environment Information System (STE-IS) and Reconfigurable Virtual Collective Trainer (RVCT) prototype IOC in 4th QTR FY2021, and associated fielding support. Soldier Virtual Interface Devices will be deployed in support of the overarching Soldier Lethality IVAS capability to meet close combat lethality fight, rehearse, train capabilities starting in FY21. The STE CFT is working closely with PEO Soldier to leverage their production OTA contract for an anticipated 1st QTR FY2021 award in order to meet FUE in the 4th QTR FY2021 and IOC in the 1st QTR FY2022. Existing OTAs are in place to support fielding services and cloud computing storage. Leveraging commercial contracting for standard off the shelf items that can be government owned and provided in support of IOC and production fielding's.

In accordance with Section 1815 of the FY 2008 National Defense Authorization Act (P.L. 110-181), this item is necessary for use by the Active and Reserve components of the Armed Forces for homeland defense missions, domestic emergency responses, and providing military support to civil authorities.

Other Program Funding: RDT&E located in 644121FD6/SV1

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 70		P-1 Line Item Number / Title: 2079NA2000 / Synthetic Training Environment (STE)
		Item Number / Title [DODIC]: NA2020 / Synthetic Training Environment (STE)

ID Code (A=Service Ready, B=Not Service Ready) :				MDAP/MAIS Code:					
Resource Summary				Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Procurement Quantity (Units in Each)				-	-	72	17	-	17
Gross/Weapon System Cost (\$ in Millions)				-	-	14.449	13.063	-	13.063
Less PY Advance Procurement (\$ in Millions)				-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)				-	-	14.449	13.063	-	13.063
Plus CY Advance Procurement (\$ in Millions)				-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)				-	-	14.449	13.063	-	13.063
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>									
Initial Spares (\$ in Millions)				-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Thousands)				-	-	200.681	768.412	-	768.412

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
Hardware Cost																		
Recurring Cost																		
Synthetic Training Environment - Soldier Virtual Interface Devices ^(f)	-	-	-	-	-	-	166.236	72	11.969	165.647	17	2.816	-	-	-	165.647	17	2.816
Synthetic Training Environment - Production and Fielding Support	-	-	-	-	-	-	-	-	2.480	-	-	-	-	-	-	-	-	-
Synthetic Training Environment Information Systems - Fielding Support	-	-	-	-	-	-	-	-	-	-	-	8.486	-	-	-	-	-	8.486
Reconfigurable Virtual Collective Trainer (Ground) - Fielding Support	-	-	-	-	-	-	-	-	-	-	-	1.761	-	-	-	-	-	1.761
<i>Subtotal: Recurring Cost</i>	-	-	-	-	-	-	-	-	14.449	-	-	13.063	-	-	-	-	-	13.063
<i>Subtotal: Hardware Cost</i>	-	-	-	-	-	-	-	-	14.449	-	-	13.063	-	-	-	-	-	13.063
Gross/Weapon System Cost	-	-	-	-	-	-	200.681	72	14.449	768.412	17	13.063	-	-	-	768.412	17	13.063

Remarks:

FY2021 Fielding Support includes additional funds for both STE IS and RVCT support, leading up to 4th QTR IOC.

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 70	P-1 Line Item Number / Title: 2079NA2000 / Synthetic Training Environment (STE)	Item Number / Title [DODIC]: NA2020 / Synthetic Training Environment (STE)

ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:
---------------------------------------------------------	------------------------

Soldier Virtual Interface Devices are required to support the training capabilities of First Unit Equipped (FUE) in 4th QTR FY2021 and IOC in 1st QTR FY2022. Training kits will be deployed in support of the overarching Soldier Lethality IVAS capability to meet close combat lethality fight, rehearse, train capabilities starting in FY21.

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Army	Quantity	-	54	13	-	13
	Total Obligation Authority	-	10.869	12.040	-	12.040
ANG	Quantity	-	18	4	-	4
	Total Obligation Authority	-	3.580	1.023	-	1.023
Total: Secondary Distribution	Quantity	-	72	17	-	17
	Total Obligation Authority	-	14.449	13.063	-	13.063

(t) indicates the presence of a P-5a

UNCLASSIFIED

Exhibit P-5a, Procurement History and Planning: PB 2021 Army							Date: February 2020				
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 70			P-1 Line Item Number / Title: 2079NA2000 / Synthetic Training Environment (STE)				Item Number / Title [DODIC]: NA2020 / Synthetic Training Environment (STE)				

Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty <i>(Each)</i>	Unit Cost <i>(\$ K)</i>	Specs Avail Now?	Date Revision Available	RFP Issue Date
Synthetic Training Environment - Soldier Virtual Interface Devices		2020	Microsoft / Redmond, WA	TBD	ACC APG	Oct 2020	Dec 2020	72	166.236	N		
Synthetic Training Environment - Soldier Virtual Interface Devices		2021	Microsoft / Redmond, WA	TBD	ACC APG	Oct 2020	Dec 2020	17	165.647	N		

Remarks:

The STE CFT is working closely with PEO Soldier to leverage their production OTA contract for an anticipated 1st QTR FY2021 award in order to meet FUE in the 4th QTR FY2021 and IOC in the 1st QTR FY2022. Existing OTAs are in place to support fielding services and cloud computing storage. Leveraging commercial contracting in FY20 for standard off the shelf items that can be government owned and provided in support of IOC and production fielding's to meet condensed user fielding schedules.

Fielding support is critical to support the fielding of IOC units at the five locations supporting the STE-IS and RVCT IOC in 4Q21. Fielding support teams will support the fielding of the hardware platforms, the cloud services with the software baseline, and the associated net training the fielded users.

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 70: Training Equipment	P-1 Line Item Number / Title: 6650NA0170 / Close Combat Tactical Trainer
------------------------------------------------------------------------------------------------------------------------------------------------------------------	------------------------------------------------------------------------------------

ID Code (A=Service Ready, B=Not Service Ready):	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
--------------------------------------------------------	-----------------------------------------------	--------------------------------------------

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	604	214	-	-	-	-	-	-	-	-	-	818
Gross/Weapon System Cost (<i>\$ in Millions</i>)	1,183.815	33.080	-	-	-	-	-	-	-	-	-	1,216.895
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	1,183.815	33.080	-	-	-	-	-	-	-	-	-	1,216.895
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	1,183.815	33.080	-	-	-	-	-	-	-	-	-	1,216.895

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Thousands</i>)	1,959.959	154.579	-	-	-	-	-	-	-	-	-	1,487.647

Description:

The Close Combat Tactical Trainer (CCTT) is a critical readiness enabler for Armored Brigade Combat Team (ABCT) units. CCTT simulators support Commanders' home station collective training and readiness requirements in conducting pre-deployment training in preparation for worldwide combat operations. CCTT immersively and comprehensively trains Armor, Cavalry, Infantry, Mechanized Infantry and Armored Reconnaissance units from squad through Battalion/Squadron level to include their staffs. The primary training audience operates from full-crew simulators, reconfigurable command posts and live battalion command posts to accomplish their combined arms training tasks. CCTT is a ground based, collective training device. CCTT is comprised of full fidelity, manned simulators for the M1 Abrams Main Battle Tank, M2 Bradley Fighting Vehicle (BFV) variants and includes the Reconfigurable Vehicle Tactical Trainer (RVTT) and Reconfigurable Vehicle Simulator (RVS) modules. RVTT is comprised of full fidelity, manned simulators for the High Mobility Multipurpose Wheeled Vehicle (HMMWV) and the Heavy Expanded Mobility Tactical Truck (HEMTT).

CCTT is an integral part of the Army training strategy, and through planned platform concurrency modernization.

Secondary Distribution	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
Army									
	Quantity	214	-	-	-	-	-	-	-
	Total Obligation Authority	33.080	-	-	-	-	-	-	-
Total:	Quantity	214	-	-	-	-	-	-	-
Secondary Distribution	Total Obligation Authority	33.080	-	-	-	-	-	-	-

Justification:

Effective FY20, Close Combat Tactical Trainer is in sustainment and does not have procurement or RDTE funds programmed.

In accordance with Section 1815 of the FY 2008 National Defense Authorization Act (P.L. 110-181), this item is necessary for use by the Active and Reserve Components of the Army Forces for homeland defense missions, domestic emergency responses and providing military support to civil authorities.

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 70: Training Equipment	P-1 Line Item Number / Title: 6800NA0173 / Aviation Combined Arms Tactical Trainer
------------------------------------------------------------------------------------------------------------------------------------------------------------------	----------------------------------------------------------------------------------------------

ID Code (A=Service Ready, B=Not Service Ready):	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
--------------------------------------------------------	-----------------------------------------------	--------------------------------------------

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	45	21	21	-	-	-	-	-	-	-	-	87
Gross/Weapon System Cost (<i>\$ in Millions</i>)	570.503	32.700	4.840	-	-	-	-	-	-	-	-	608.043
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	570.503	32.700	4.840	-	-	-	-	-	-	-	-	608.043
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	570.503	32.700	4.840	-	-	-	-	-	-	-	-	608.043

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Thousands</i>)	12,677.844	1,557.143	230.476	-	-	-	-	-	-	-	-	6,989.000

Description:

The Aviation Combined Arms Tactical Trainer (AVCATT) is Army Aviation's only Collective Training System of Record to ensure the Active, Reserve and Army National Guard Aviation Units are trained and ready. AVCATT enables unit collective and combined arms air-ground training for AH-64, UH-60, CH-47, UH-72, and UH-72 aircrews within the Live, Virtual, Constructive (LVC) Integrated Training Environment (ITE). The AVCATT also supports the training of Non-Rated crew members in crew coordination, flight, aerial gunnery, hoist, and slingload related tasks via the Non-Rated Crewmember Manned Module (NCM3); which can be linked to AVCATT's UH-60, CH-47, and UH-72 cockpit configurations to support a unit's specific Mission Training Requirements.

Supports the Synthetic Training Environment (STE), which is the next generation holistic collective training capability that will train units at the point of need within the entire range of Multi-Domain Battle tasks in support of Unified Land Operations in a complex operational environment. STE will be a synthetic environment (virtual, constructive, and gaming) utilizing common authoritative data and models that is cloud-enabled through the Army Enterprise Network, and is service-based through the Common Operating Environment.

Secondary Distribution	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
Army	Quantity	12	12	-	-	-	-	-	-
	Total Obligation Authority	18.685	2.766	-	-	-	-	-	-
ANG	Quantity	4	5	-	-	-	-	-	-
	Total Obligation Authority	6.229	0.922	-	-	-	-	-	-
AR	Quantity	5	4	-	-	-	-	-	-
	Total Obligation Authority	7.786	1.152	-	-	-	-	-	-
Total:	Quantity	21	21	-	-	-	-	-	-
Secondary Distribution	Total Obligation Authority	32.700	4.840	-	-	-	-	-	-

Justification:

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 70: Training Equipment		P-1 Line Item Number / Title: 6800NA0173 / Aviation Combined Arms Tactical Trainer
ID Code (A=Service Ready, B=Not Service Ready):	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
Line Item MDAP/MAIS Code: N/A		
Effective FY 2021, the Aviation Combined Arms Tactical Trainer Program is in sustainment, and does not have procurement or RDTE funds programmed.		
In accordance with Section 1815 of the FY 2008 National Defense Authorization Act (P.L. 110-181), this item is necessary for use by the Active and Reserve components of the Armed Forces for homeland defense missions, domestic emergency responses, and providing military support to civil authorities.		

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 70: Training Equipment	P-1 Line Item Number / Title: 6860NA0176 / Gaming Technology In Support of Army Training
------------------------------------------------------------------------------------------------------------------------------------------------------------------	----------------------------------------------------------------------------------------------------

ID Code (A=Service Ready, B=Not Service Ready):	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
--------------------------------------------------------	-----------------------------------------------	--------------------------------------------

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	25	87	45	-	-	-	-	-	-	-	-	157
Gross/Weapon System Cost (<i>\$ in Millions</i>)	69.720	25.161	15.463	1.950	-	1.950	-	-	-	-	-	112.294
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	69.720	25.161	15.463	1.950	-	1.950	-	-	-	-	-	112.294
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	69.720	25.161	15.463	1.950	-	1.950	-	-	-	-	-	112.294

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Thousands</i>)	2,788.800	289.207	343.622	-	-	-	-	-	-	-	-	715.248

Description:

The Games for Training (GFT) Program prepares Soldiers and Leaders for executing Unified Land Operations by delivering robust training and mission rehearsal capabilities. The GFT program satisfies the Active, National Guard, and Army Reserves' educational requirements in the Operational, Institutional, and Self-Development Training Domains with a low-overhead, flexible, persistent training capability on geo-specific and geo-typical terrain that is relevant with all military platforms and weapon systems. This gaming capability allows units and commanders to train individual and collective tasks at the company and below level with minimal amount of resourcing required (land, ammunition, transportation, etc.) in support of Multi-Domain Operations (MDO) 2028. Through the use of GFT systems, commanders are able to refine and rehearse unit Tactics, Techniques, and Procedures (TTPs) and Standard Operating Procedures (SOPs) prior to executing live, large-scale training events. GFT trains higher echelon units and staffs by facilitating Tactical Exercises Without Troops (TEWT).

Secondary Distribution	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
Army	Quantity	43	16	-	-	-	-	-	-
	Total Obligation Authority	20.620	6.748	1.016	-	1.016	-	-	-
ANG	Quantity	4	26	-	-	-	-	-	-
	Total Obligation Authority	2.838	7.758	0.823	-	0.823	-	-	-
AR	Quantity	40	3	-	-	-	-	-	-
	Total Obligation Authority	1.703	0.957	0.111	-	0.111	-	-	-
Total: Secondary Distribution	Quantity	87	45	-	-	-	-	-	-
	Total Obligation Authority	25.161	15.463	1.950	-	1.950	-	-	-

Justification:

FY 2021 Base procurement dollars in the amount of \$1.950 million allows for the Games for Training (GFT) program to enable sustained readiness by efficiently and effectively building soldier, leader, and unit competency on technical skills necessary to perform multiple mission types in accordance with current tactics, techniques and procedures. Additionally, funding will also provide government management and

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 70: Training Equipment		P-1 Line Item Number / Title: 6860NA0176 / Gaming Technology In Support of Army Training
ID Code (A=Service Ready, B=Not Service Ready):	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
Line Item MDAP/MAIS Code: N/A		
<p>system technical support of fielded GFT Systems to ensure compliance with the US Army cybersecurity requirements. Lastly, funding will continue to provide Government Furnished Material to ensure continued distribution of gaming content and to facilitate technical support to the Army training community.</p> <p>Government Management will provide engineering and technical oversight, and travel for the GFT program. System Technical Support provides the oversight, implementation, and help desk support in order to facilitate the program's Cybersecurity Strategy for its fielded GFT classroom and Stryker Virtual Collective Trainer (SVCT) suites across 88 various Army locations. Government Furnished Material provides a Web Portal for the centralized distribution, repository of content and tech support of the VBS3 and gaming software for the Army training community. GFT is a critical program enabling other virtual and constructive training capabilities and the Integrated Training Environment (ITE).</p>		

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity:
2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 80: Test Measure and Dig Equipment (TMD) **P-1 Line Item Number / Title:**
0100N10000 / Calibration Sets Equipment

ID Code (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** N/A **Other Related Program Elements:** 0604746A

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	325	793	-	-	-	-	-	-	-	-	Continuing	Continuing
Gross/Weapon System Cost (<i>\$ in Millions</i>)	306.778	4.270	3.030	2.511	-	2.511	3.878	2.647	2.324	2.324	Continuing	Continuing
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	306.778	4.270	3.030	2.511	-	2.511	3.878	2.647	2.324	2.324	Continuing	Continuing
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	306.778	4.270	3.030	2.511	-	2.511	3.878	2.647	2.324	2.324	Continuing	Continuing

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Thousands</i>)	943.932	5.385	-	-	-	-	-	-	-	-	Continuing	Continuing

Description:

Calibration Sets Equipment (CALSETS) consists of calibration instrumentation housed in fixed facilities or contained within tactical shelters with accompanying power generation equipment. The CALSETS instrumentation provides support to maintenance units and area support organizations from brigade to multi-theater sustainment operations and ensures a cascading transfer of precision accuracy originating from the US National Institute of Standards and Technology (NIST). The calibration sets are designed to support 90 percent of the Army test, measurement and diagnostic equipment (TMDE) workload with an objective of 98 percent. The instruments and equipment procured through this program are assembled into several set configurations (AN/GSM-286, AN/GSM-287, AN/GSM-439, AN/GSM-440, AN/GSM-442, AN/GSM-26(V)1, AN/GSM-26(V)2 and Secondary Reference) and two tactical calibration shelters (AN/GSM-705 and AN/GSM-421A(V)2). These calibration standards sets are integral to verifying the accuracy of TMDE with mandated traceability to accuracy standards. State-of-the-art calibration equipment is required to ensure that advanced technology weapons and systems are maintained at the required state of operational readiness. Systems supported by the Calibration Sets include, but are not limited to, unmanned aerial vehicles (Shadow/Gray Eagle); military signal and electronic intelligence operations; tactical and strategic communications (Single Channel Ground and Airborne Radio System (SINCGARS)); and ground, missile and aviation platforms such as the Army Family of Medium Tactical Vehicles (FMTV), Abrams, Multiple Launch Rocket System, Patriot, Apache, Blackhawk, Chinook and all future weapon systems.

Army Acquisition Objective (AAO): AN/GSM-286 - 45; AN/GSM-287 - 67; AN/GSM-439 - 38; AN/GSM-440 - 33; AN/GSM-705 - 27; AN/GSM-421A(V)2 - 27; AN/GSM-26(V)1 - 162; AN/GSM-26(V)2 - 34; AN/GSM-422 - 1; Secondary Reference Standards Set - 11

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
Army	Quantity	487	-	-	-	-	-	-	-	-
	Total Obligation Authority	1.949	3.030	2.511	-	2.511	3.878	2.647	2.324	2.324
ANG	Quantity	306	-	-	-	-	-	-	-	-
	Total Obligation Authority	2.321	-	-	-	-	-	-	-	-
Total: Secondary Distribution	Quantity	793	-	-	-	-	-	-	-	-
	Total Obligation Authority	4.270	3.030	2.511	-	2.511	3.878	2.647	2.324	2.324

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 80: Test Measure and Dig Equipment (TMD)		P-1 Line Item Number / Title: 0100N10000 / Calibration Sets Equipment
ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: 0604746A
Line Item MDAP/MAIS Code: N/A		
Justification: FY 2021 base procurement dollars in the amount of \$2.511 million support acquisition of multi-product calibrators and multi-function calibrators (to support various electronic test, measurement and diagnostic equipment and communication, missile, ground vehicle, and radar systems). These items are components of various calibration sets and are used in the tactical calibration shelters. The quantities reflected for FY 2019 include modernization items that are incorporated into calibration set shelters in the Army's inventory to maintain and upgrade capabilities of the sets. Quantities shown for FY 2020 and beyond represent calibration set/shelter acquisitions only and exclude quantities for modernization items. In accordance with Section 1815 of the FY 2008 National Defense Authorization Act (P.L. 110-181), this item is necessary for use by the active and reserve components of the Armed Forces for homeland defense missions, domestic emergency responses, and providing military support to civil authorities.		

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 80: Test Measure and Dig Equipment (TMD)	P-1 Line Item Number / Title: 0200MB4000 / Integrated Family Of Test Equipment (IFTE)
---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-------------------------------------------------------------------------------------------------

ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: 0604746A
----------------------------------------------------------	-----------------------------------------------	-------------------------------------------------

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	989	6,172	1,829	864	-	864	729	-	-	-	-	10,583
Gross/Weapon System Cost (<i>\$ in Millions</i>)	803.529	82.037	78.375	78.578	-	78.578	78.146	-	-	-	-	1,120.665
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	803.529	82.037	78.375	78.578	-	78.578	78.146	-	-	-	-	1,120.665
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	803.529	82.037	78.375	78.578	-	78.578	78.146	-	-	-	-	1,120.665

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Thousands</i>)	812.466	13.292	42.851	90.947	-	90.947	107.196	-	-	-	-	105.893

Description:

The Integrated Family of Test Equipment (IFTE) includes the Maintenance Support Device (MSD) for at-system automatic test and diagnostic support and the Next Generation Automatic Test System (NGATS) for consolidation of off-system automatic test and diagnostic equipment requirements. The IFTE systems provide electronic fault isolation, diagnostic and repair capabilities at all levels of maintenance and do it more cost effectively than system-specific testers. They are designed to and are capable of supporting multiple weapons systems. The MSD fleet consists of portable rugged and light (non-rugged) test and diagnostic equipment used at all levels of maintenance to automatically diagnose electronic and automotive subsystems of the Army's ground and aviation weapon systems. The MSD systems provide test and diagnostic support and maintenance automation capabilities that are critical to the readiness of Army units and their equipment. They host interactive electronic technical manuals and expert diagnostics systems, conduct intrusive testing in support of Army weapons and electronic systems, and provide a means to upload/download mission-critical software into weapon system on-board computer electronics. The MSDs are being fielded to support approved Army force structure requirements. They will host the Digital Logbook and Global Combat Support System-Army (GCSS-A) software, provide Army maintainers the capability to connect to the logistics enterprise, and perform maintenance management in an information-enabled environment. The MSDs are the Army's standard at-system test and diagnostic equipment. They are an essential maintenance tool in the support plans for the Army's ground vehicle and aviation fleets, and are in widespread use in deployed units. The NGATS is a mobile, rapidly deployable, reconfigurable general-purpose automatic test and diagnostic system which provides sustainment level maintenance testing and screening directly to the Army's major weapons systems in order to maintain the readiness and availability of those combat systems. NGATS maintains backward compatibility with previous IFTE versions, is Joint Services Next-Generation Test (NxTest) compliant, and includes interservice testing and diagnostic support capability. It is capable of satisfying field, sustainment and depot level requirements for fault isolation, diagnostics and off-system repair of current and future weapons systems. NGATS will be the single automatic test and diagnostic solution in the Army by incrementally replacing the Direct Support Electrical Systems Test Set (DSESTS), all previous IFTE Base Shop Test Facility versions, and depot system-specific automatic test equipment. It is the platform for transitioning Agile Rapid Global Combat Support System (ARGCS) technologies into the Army's weapon system support structure. The ARGCS Advanced Concept Technology Demonstration (ACTD) was sponsored by the Department of Defense (DoD), and all Services are expected to transition demonstrated technologies into their automatic test system (ATS) programs. The NGATS eliminates the requirement for the 1970s era DSESTS and reduces the associated logistics burden and cost of support. It implements a modern test and diagnostic capability to support the new generation of ground-based targeting and observation sensor packages for individual, crew and intelligence gathering systems and equipment such as Stryker Remote Weapons Station (RWS), Improved Tube-launched Optically-tracked Wire-guided missile (TOW) Acquisition System (ITAS), Common Remotely Operated Weapons Station (CROWS) and Common Missile Warning System (CMWS) and also has the ability to improve the testing and diagnostic support of legacy weapons systems.

Army Acquisition Objective (AAO): MSD - 25,803; AV-MSD - 5002; NGATS - 175

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 80: Test Measure and Dig Equipment (TMD) **P-1 Line Item Number / Title:** 0200MB4000 / Integrated Family Of Test Equipment (IFTE)

ID Code (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** N/A **Other Related Program Elements:** 0604746A

Line Item MDAP/MAIS Code: N/A

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
Army	Quantity	4,750	1,144	539	-	539	375	-	-	-
	Total Obligation Authority	48.277	74.325	59.686	-	59.686	73.748	-	-	-
ANG	Quantity	1,124	545	257	-	257	310	-	-	-
	Total Obligation Authority	33.295	3.198	17.849	-	17.849	3.868	-	-	-
AR	Quantity	298	140	68	-	68	44	-	-	-
	Total Obligation Authority	0.465	0.852	1.043	-	1.043	0.530	-	-	-
Total:	Quantity	6,172	1,829	864	-	864	729	-	-	-
Secondary Distribution	Total Obligation Authority	82.037	78.375	78.578	-	78.578	78.146	-	-	-

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 80: Test Measure and Dig Equipment (TMD) **P-1 Line Item Number / Title:** 0200MB4000 / Integrated Family Of Test Equipment (IFTE)

ID Code (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** N/A **Other Related Program Elements:** 0604746A

Line Item MDAP/MAIS Code: N/A

Exhibits Schedule					Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-5	MB4002 / Maintenance Support Device	P-5a	A		979 / 636.875	6,159 / 29.475	1,812 / 12.052	847 / 10.522	- / -	847 / 10.522
P-5	MB4004 / Next Generation Automatic Test System (NGATS)	P-5a, P-21	A		10 / 166.654	13 / 52.562	17 / 66.323	17 / 68.056	- / -	17 / 68.056
P-40	Total Gross/Weapon System Cost				989 / 803.529	6,172 / 82.037	1,829 / 78.375	864 / 78.578	- / -	864 / 78.578

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

Justification:

FY 2021 Base procurement dollars in the amount of \$78.375 million support acquisition of 17 Next Generation Automatic Test Systems (NGATS) and 847 Maintenance Support Devices (MSD) to satisfy critical test and diagnostic requirements of Army warfighting systems and to support a balanced investment strategy for the Army's approved force structure requirements. Acquisition of the NGATS will continue deployment of a multi-purpose, multi-echelon off-platform automatic test and diagnostic capability to support many of the Army's weapons platforms such as Abrams, Bradley, Counter Radio-Controlled Improvised Explosive Device (RCIED) Electronic Warfare (CREW)/Duke, Stryker, Common Remotely Operated Weapons Station (CROWS), M777, Paladin Integrated Management (PIM), Tube-launched Optically-tracked Wire-guided (TOW), Avenger and Multiple Launch Rocket System and to achieve the stated Department of Defense (DoD) goal of replacing multiple single function, aging, obsolete and costly automatic test systems with a single tester capable of supporting all weapons systems at field, sustainment and depot maintenance levels. The FY 2021 funding will complete buy out of the entire NGATS US Army Training and Doctrine Command (TRADOC) requirement and replacement of obsolete Direct Support Electrical Systems Test Set (DSESTS) at 17 Armored Brigade Combat Teams (ABCT) in support of the Abrams and Bradley systems. This funding also implements the net-centric logistics capability ensuring maintenance data is leveraged at all support levels through a closed loop data sharing architecture that supports the future logistics concepts as well as improved diagnostics by linking embedded diagnostics and condition-based maintenance. Acquisition of the MSDs will satisfy approved Army force structure requirements. This equipment provides critical test and diagnostics support for weapons and support systems such as the Abrams, Bradley, Stryker, Blackhawk, Chinook, Apache, Patriot, and the Army's diesel-powered tactical wheeled vehicles.

FY 2019 quantity was decreased to 3,618 because of an internal redistribution of funding to accommodate urgent requirements to support equipment fieldings.

In accordance with Section 1815 of the FY 2008 National Defense Authorization Act (P.L. 110-181), this item is necessary for use by the active and reserve components of the Armed Forces for homeland defense missions, domestic emergency responses, and providing military support to civil authorities.

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army					Date: February 2020				
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 80			P-1 Line Item Number / Title: 0200MB4000 / Integrated Family Of Test Equipment (IFTE)			Item Number / Title [DODIC]: MB4002 / Maintenance Support Device			
ID Code (A=Service Ready, B=Not Service Ready) : A					MDAP/MAIS Code:				
Resource Summary			Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	
Procurement Quantity (Units in Each)			979	6,159	1,812	847	-	847	
Gross/Weapon System Cost (\$ in Millions)			636.875	29.475	12.052	10.522	-	10.522	
Less PY Advance Procurement (\$ in Millions)			-	-	-	-	-	-	
Net Procurement (P-1) (\$ in Millions)			636.875	29.475	12.052	10.522	-	10.522	
Plus CY Advance Procurement (\$ in Millions)			-	-	-	-	-	-	
Total Obligation Authority (\$ in Millions)			636.875	29.475	12.052	10.522	-	10.522	
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>									
Initial Spares (\$ in Millions)			-	-	-	-	-	-	
Gross/Weapon System Unit Cost (\$ in Thousands)			650.536	4.786	6.651	12.423	-	12.423	

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
Hardware Cost																		
Recurring Cost																		
Maintenance Support Device (MSD) (Rugged) ^(†)	15.269	23,759	362.783	3.934	3,074	12.093	3.934	992	3.903	3.953	635	2.510	-	-	-	3.953	635	2.510
MSD (Light) ^(†)	-	-	0.601	3.127	536	1.676	3.126	820	2.563	3.137	212	0.665	-	-	-	3.137	212	0.665
MSD Type 3	6.854	144	0.987	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Aviation MSD/Aircraft Notebook	3.437	1,733	5.956	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Internal Combustion Engine (ICE)/Wireless At-Platform Test Set (WATS) Kits	-	-	1.500	-	-	10.676	-	-	-	-	-	1.364	-	-	-	-	-	1.364
Subtotal: Recurring Cost	-	-	371.827	-	-	24.445	-	-	6.466	-	-	4.539	-	-	-	-	-	4.539
Non Recurring Cost																		
Support Equipment/ Accessories	-	-	1.484	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Non Recurring Cost	-	-	1.484	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Hardware Cost	-	-	373.311	-	-	24.445	-	-	6.466	-	-	4.539	-	-	-	-	-	4.539
Package Fielding Cost																		
Recurring Cost																		
New Equipment Training/Fielding Support	-	-	5.758	-	-	0.369	-	-	0.406	-	-	0.636	-	-	-	-	-	0.636

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army												Date: February 2020					
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 80						P-1 Line Item Number / Title: 0200MB4000 / Integrated Family Of Test Equipment (IFTE)						Item Number / Title [DODIC]: MB4002 / Maintenance Support Device					
ID Code (A=Service Ready, B=Not Service Ready) : A												MDAP/MAIS Code:					

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
Shipping Equipment to the Field	-	-	0.793	-	-	0.146	-	-	0.063	-	-	0.071	-	-	-	-	-	0.071
<i>Subtotal: Recurring Cost</i>	-	-	6.551	-	-	0.515	-	-	0.469	-	-	0.707	-	-	-	-	-	0.707
<i>Subtotal: Package Fielding Cost</i>	-	-	6.551	-	-	0.515	-	-	0.469	-	-	0.707	-	-	-	-	-	0.707
Logistics Cost																		
Recurring Cost																		
Technical and Logistics Data/ Services	-	-	1.218	-	-	0.327	-	-	0.631	-	-	0.664	-	-	-	-	-	0.664
Technical Publications	-	-	0.135	-	-	0.185	-	-	0.066	-	-	0.068	-	-	-	-	-	0.068
<i>Subtotal: Recurring Cost</i>	-	-	1.353	-	-	0.512	-	-	0.697	-	-	0.732	-	-	-	-	-	0.732
<i>Subtotal: Logistics Cost</i>	-	-	1.353	-	-	0.512	-	-	0.697	-	-	0.732	-	-	-	-	-	0.732
Support - Initial Spares and Repair Parts Cost																		
Initial Spares and Repair Parts	-	-	0.996	-	-	-	-	-	0.500	-	-	-	-	-	-	-	-	-
<i>Subtotal: Support - Initial Spares and Repair Parts Cost</i>	-	-	0.996	-	-	-	-	-	0.500	-	-	-	-	-	-	-	-	-
Support - Production Engineering Cost																		
Production Engineering	-	-	18.088	-	-	1.398	-	-	1.445	-	-	1.688	-	-	-	-	-	1.688
<i>Subtotal: Support - Production Engineering Cost</i>	-	-	18.088	-	-	1.398	-	-	1.445	-	-	1.688	-	-	-	-	-	1.688
Support - Program Management Cost																		
Government Management	-	-	9.364	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Support - Program Management Cost</i>	-	-	9.364	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Support - Quality Assurance Cost																		
Quality Assurance	-	-	0.694	-	-	0.073	-	-	0.073	-	-	0.075	-	-	-	-	-	0.075
<i>Subtotal: Support - Quality Assurance Cost</i>	-	-	0.694	-	-	0.073	-	-	0.073	-	-	0.075	-	-	-	-	-	0.075
Support - System Engineering Cost																		
System Engineering	-	-	223.737	-	-	1.668	-	-	1.619	-	-	1.843	-	-	-	-	-	1.843
<i>Subtotal: Support - System Engineering Cost</i>	-	-	223.737	-	-	1.668	-	-	1.619	-	-	1.843	-	-	-	-	-	1.843
Support - System Technical Support (STS) Cost																		
System Technical Support (STS)	-	-	0.919	-	-	0.691	-	-	0.710	-	-	0.863	-	-	-	-	-	0.863

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army												Date: February 2020					
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 80						P-1 Line Item Number / Title: 0200MB4000 / Integrated Family Of Test Equipment (IFTE)						Item Number / Title [DODIC]: MB4002 / Maintenance Support Device					
ID Code (A=Service Ready, B=Not Service Ready) : A												MDAP/MAIS Code:					

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
<i>Subtotal: Support - System Technical Support (STS) Cost</i>	-	-	0.919	-	-	0.691	-	-	0.710	-	-	0.863	-	-	-	-	-	0.863
Support - System Test and Evaluation Cost																		
Test and Evaluation Support	-	-	1.869	-	-	0.173	-	-	0.073	-	-	0.075	-	-	-	-	-	0.075
<i>Subtotal: Support - System Test and Evaluation Cost</i>	-	-	1.869	-	-	0.173	-	-	0.073	-	-	0.075	-	-	-	-	-	0.075
Gross/Weapon System Cost	650.536	979	636.875	4.786	6,159	29.475	6.651	1,812	12.052	12.423	847	10.522	-	-	-	12.423	847	10.522

Remarks:

System issues prevented the correct population of quantities in the P-5 Resource Summary header and Gross/Weapon System Unit Cost totals for FY 2020 OCO. The Cost Element detail of the P-5 (Hardware) provides planned procurement quantities associated with FY 2020 funding.

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Army	Quantity	4,743	1,127	525	-	525
	Total Obligation Authority	19.448	8.002	5.255	-	5.255
ANG	Quantity	1,118	545	254	-	254
	Total Obligation Authority	9.562	3.198	4.224	-	4.224
AR	Quantity	298	140	68	-	68
	Total Obligation Authority	0.465	0.852	1.043	-	1.043
Total: Secondary Distribution	Quantity	6,159	1,812	847	-	847
	Total Obligation Authority	29.475	12.052	10.522	-	10.522

(t) indicates the presence of a P-5a

UNCLASSIFIED

Exhibit P-5a, Procurement History and Planning: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 80	P-1 Line Item Number / Title: 0200MB4000 / Integrated Family Of Test Equipment (IFTE)	Item Number / Title [DODIC]: MB4002 / Maintenance Support Device
----------------------------------------------------------------------------------	-------------------------------------------------------------------------------------------------	----------------------------------------------------------------------------

Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty <i>(Each)</i>	Unit Cost <i>(\$ K)</i>	Specs Avail Now?	Date Revision Available	RFP Issue Date
Maintenance Support Device (MSD) (Rugged)		2019	DRS Network & Imaging Systems, LLC / Melbourne, FL	C / FFP	ACC-Redstone	Mar 2020	Jun 2020	3,074	3.934	Y		
Maintenance Support Device (MSD) (Rugged)		2020	DRS Network & Imaging Systems, LLC / Melbourne, FL	C / FFP	ACC-Redstone	Mar 2020	Dec 2020	992	3.934	Y		
Maintenance Support Device (MSD) (Rugged)		2021	DRS Network & Imaging Systems, LLC / Melbourne, FL	C / FFP	ACC-Redstone	Feb 2021	May 2021	635	3.953	Y		
MSD (Light)		2019	DRS Network & Imaging Systems, LLC / Melbourne, FL	C / FFP	ACC-New Jersey	Mar 2020	Jun 2020	536	3.127	Y		
MSD (Light)		2020	DRS Network & Imaging Systems, LLC / Melbourne, FL	C / FFP	ACC-New Jersey	Mar 2020	Dec 2020	820	3.126	Y		
MSD (Light)		2021	DRS Network & Imaging Systems, LLC / Melbourne, FL	C / FFP	ACC-New Jersey	Feb 2021	May 2021	212	3.137	Y		

Remarks:
Unit costs vary from year to year depending upon the configurations purchased to meet projected fielding requirements. Maintenance Support Device (MSD) systems are costed and programmed normally with 26 percent of the MSD fleet equipped with a wireless at-platform test set (WATS) required for testing diesel powered engines and an approximate mix of 75 percent rugged and 25 percent light configurations.

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 80		P-1 Line Item Number / Title: 0200MB4000 / Integrated Family Of Test Equipment (IFTE)
		Item Number / Title [DODIC]: MB4004 / Next Generation Automatic Test System (NGATS)

ID Code (A=Service Ready, B=Not Service Ready) : A	MDAP/MAIS Code:
-----------------------------------------------------------	------------------------

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Procurement Quantity (Units in Each)	10	13	17	17	-	17
Gross/Weapon System Cost (\$ in Millions)	166.654	52.562	66.323	68.056	-	68.056
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	166.654	52.562	66.323	68.056	-	68.056
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	166.654	52.562	66.323	68.056	-	68.056

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (\$ in Millions)	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Thousands)	16,665.400	4,043.231	3,901.353	4,003.294	-	4,003.294

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
Hardware Cost																		
Recurring Cost																		
Next Generation Automatic Test System ^(†)	3,363.923	13	43.731	2,500.000	8	20.000	2,483.647	17	42.222	2,523.529	17	42.900	-	-	-	2,523.529	17	42.900
Low-Rate Initial Production (LRIP) Upgrade	-	-	-	-	-	0.600	-	-	1.800	-	-	2.700	-	-	-	-	-	2.700
ATE Shelters	-	-	2.302	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Recurring Cost</i>	-	-	46.033	-	-	20.600	-	-	44.022	-	-	45.600	-	-	-	-	-	45.600
<i>Subtotal: Hardware Cost</i>	-	-	46.033	-	-	20.600	-	-	44.022	-	-	45.600	-	-	-	-	-	45.600
Software Cost																		
Recurring Cost																		
Test Program Set Support	-	-	20.276	-	-	6.618	-	-	6.658	-	-	6.829	-	-	-	-	-	6.829
<i>Subtotal: Recurring Cost</i>	-	-	20.276	-	-	6.618	-	-	6.658	-	-	6.829	-	-	-	-	-	6.829
<i>Subtotal: Software Cost</i>	-	-	20.276	-	-	6.618	-	-	6.658	-	-	6.829	-	-	-	-	-	6.829
Logistics Cost																		
Recurring Cost																		
Technical and Logistics Data/ Services	-	-	4.300	-	-	2.721	-	-	1.700	-	-	1.752	-	-	-	-	-	1.752
<i>Subtotal: Recurring Cost</i>	-	-	4.300	-	-	2.721	-	-	1.700	-	-	1.752	-	-	-	-	-	1.752

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 80		P-1 Line Item Number / Title: 0200MB4000 / Integrated Family Of Test Equipment (IFTE)
ID Code (A=Service Ready, B=Not Service Ready) : A		MDAP/MAIS Code:
Item Number / Title [DODIC]: MB4004 / Next Generation Automatic Test System (NGATS)		

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
<i>Subtotal: Logistics Cost</i>	-	-	4.300	-	-	2.721	-	-	1.700	-	-	1.752	-	-	-	-	-	1.752
Support - Initial Spares and Repair Parts Cost																		
Initial Spares and Repair Parts	-	-	20.377	-	-	13.190	-	-	9.231	-	-	9.500	-	-	-	-	-	9.500
<i>Subtotal: Support - Initial Spares and Repair Parts Cost</i>	-	-	20.377	-	-	13.190	-	-	9.231	-	-	9.500	-	-	-	-	-	9.500
Support - Production Engineering Cost																		
Production Engineering	-	-	21.279	-	-	4.623	-	-	3.139	-	-	2.748	-	-	-	-	-	2.748
<i>Subtotal: Support - Production Engineering Cost</i>	-	-	21.279	-	-	4.623	-	-	3.139	-	-	2.748	-	-	-	-	-	2.748
Support - Program Management Cost																		
Government Management	-	-	7.625	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Support - Program Management Cost</i>	-	-	7.625	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Support - System Technical Support (STS) Cost																		
System Technical Support (STS)	-	-	46.764	-	-	4.810	-	-	1.573	-	-	1.627	-	-	-	-	-	1.627
<i>Subtotal: Support - System Technical Support (STS) Cost</i>	-	-	46.764	-	-	4.810	-	-	1.573	-	-	1.627	-	-	-	-	-	1.627
Gross/Weapon System Cost	16,665.400	10	166.654	4,043.231	13	52.562	3,901.353	17	66.323	4,003.294	17	68.056	-	-	4,003.294	17	68.056	

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Army	Quantity	7	17	14	-	14
	Total Obligation Authority	28.829	66.323	54.431	-	54.431
ANG	Quantity	6	-	3	-	3
	Total Obligation Authority	23.733	-	13.625	-	13.625
Total: Secondary Distribution	Quantity	13	17	17	-	17
	Total Obligation Authority	52.562	66.323	68.056	-	68.056

(t) indicates the presence of a P-5a

UNCLASSIFIED

Exhibit P-5a, Procurement History and Planning: PB 2021 Army							Date: February 2020					
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 80			P-1 Line Item Number / Title: 0200MB4000 / Integrated Family Of Test Equipment (IFTE)				Item Number / Title [DODIC]: MB4004 / Next Generation Automatic Test System (NGATS)					

Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty (Each)	Unit Cost (\$ K)	Specs Avail Now?	Date Revision Available	RFP Issue Date
Next Generation Automatic Test System ^(†)		2019	Boeing Company / St. Louis	C / FFP	ACC-New Jersey	Aug 2019	Aug 2020	8	2,500.000	Y		
Next Generation Automatic Test System ^(†)		2020	Boeing Company / St. Louis	C / FFP	ACC-New Jersey	Jan 2020	Jan 2021	17	2,483.647	Y		
Next Generation Automatic Test System ^(†)		2021	Boeing Company / St. Louis	C / FFP	ACC-New Jersey	Jan 2021	Jan 2022	17	2,523.529	Y		

^(†) indicates the presence of a P-21

UNCLASSIFIED

Exhibit P-21, Production Schedule: PB 2021 Army															Date: February 2020														
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 80										P-1 Line Item Number / Title: 0200MB4000 / Integrated Family Of Test Equipment (IFTE)										Item Number / Title [DODIC]: MB4004 / Next Generation Automatic Test System (NGATS)									

Cost Elements <i>(Units in Each)</i>					Fiscal Year 2021															Fiscal Year 2022															B A L A N C E		
O C C O	M F R #	FY	SERVICE	PROC QTY	ACCEP T P R I O R T O 1 O C T 2 0 2 0	BAL D U E A S O F 1 O C T	Calendar Year 2021															Calendar Year 2022															
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P							
Next Generation Automatic Test System																																					
Prior Years Deliveries: 13																																					
1	2019	ARMY		8	2	6	1	1	1	1	1	1																							0		
1	2020	ARMY		17	0	17	-	-	-	1	1	1	1	1	2	2	2	2	2	2															0		
1	2021	ARMY		17	0	17				A	-	-	-	-	-	-	-	-	-	-	2	2	2	2	2	1	1	1	1					3			
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P							

UNCLASSIFIED

Exhibit P-21, Production Schedule: PB 2021 Army															Date: February 2020														
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 80										P-1 Line Item Number / Title: 0200MB4000 / Integrated Family Of Test Equipment (IFTE)										Item Number / Title [DODIC]: MB4004 / Next Generation Automatic Test System (NGATS)									

Cost Elements <i>(Units in Each)</i>						Fiscal Year 2023												Fiscal Year 2024												BALANCE	
O C C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2022	BAL DUE AS OF 1 OCT	Calendar Year 2023												Calendar Year 2024												
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G		S E P

Next Generation Automatic Test System																																	
Prior Years Deliveries: 13																																	
1	2019	ARMY	8	8	0																												0
1	2020	ARMY	17	17	0																												0
1	2021	ARMY	17	14	3	1	1	1																								0	

						O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	
--	--	--	--	--	--	-------------	-------------	-------------	-------------	-------------	-------------	-------------	-------------	-------------	-------------	-------------	-------------	-------------	-------------	-------------	-------------	-------------	-------------	-------------	-------------	-------------	-------------	-------------	-------------	--

UNCLASSIFIED

Exhibit P-21, Production Schedule: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 80		P-1 Line Item Number / Title: 0200MB4000 / Integrated Family Of Test Equipment (IFTE)
		Item Number / Title [DODIC]: MB4004 / Next Generation Automatic Test System (NGATS)

MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Year)			Procurement Leadtime (Months)							
		MSR For 2021	1-8-5 For 2021	MAX For 2021	Initial				Reorder			
					ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1	ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1
1	Boeing Company - St. Louis	1	10	30	8	8	13	21	0	3	13	16

Remarks:

Production rates are annual rates.

"A" in the Delivery Schedule indicates the Contract Award Date.

Note: Due to space limitations, quantities in the Exhibit P-21 delivery calendar are truncated and rounded based on the maximum quantity in the calendar as follows. If the maximum quantity is less than or equal to than 9,999, all quantities are shown as each. If the maximum quantity is between 10,000 and 999,999 all quantities are shown in thousands. If the maximum quantity is between 1,000,000 and 999,999,999 all quantities are shown in millions (rounded to the nearest thousand). If the maximum quantity is equal or greater than 1,000,000,000 all quantities are shown in billions (rounded to the nearest million).

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity:
2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 80: Test Measure and Dig Equipment (TMD) **P-1 Line Item Number / Title:**
0600N11000 / Test Equipment Modernization (TEMOD)

ID Code (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** N/A **Other Related Program Elements:** 0604746A

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	1,203	1,446	1,125	309	-	309	579	139	267	267	Continuing	Continuing
Gross/Weapon System Cost (<i>\$ in Millions</i>)	339.671	9.316	13.415	14.941	-	14.941	17.398	14.459	13.697	13.691	Continuing	Continuing
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	339.671	9.316	13.415	14.941	-	14.941	17.398	14.459	13.697	13.691	Continuing	Continuing
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	339.671	9.316	13.415	14.941	-	14.941	17.398	14.459	13.697	13.691	Continuing	Continuing

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Thousands</i>)	282.353	6.443	11.924	48.353	-	48.353	30.048	104.022	51.300	51.277	Continuing	Continuing

Description:

The Test Equipment Modernization (TEMOD) program improves the materiel readiness of Army weapon systems; minimizes general-purpose Test, Measurement, and Diagnostic Equipment (TMDE) proliferation and obsolescence; and also reduces the Army's operations and support costs. These objectives are accomplished through the cost-effective acquisition of state-of-the-art test equipment that is employed for verifying accuracy, operability and safety of Army weapon systems and for supporting those systems at all maintenance levels. The TEMOD program procures general-purpose TMDE that supports all Army commodities and is essential to the continued support of weapon system platforms such as the Abrams Tank, Bradley Fighting Vehicle, Apache Helicopter, Patriot, and Single-Channel Ground and Airborne Radio System (SINCGARS), as well as other weapon systems scheduled for fielding to the current and future forces. The Telecommunications System Test Set analyzes signal quality between communication systems to ensure data exchange accurately. The High End Oscilloscope is used to test, adjust, repair and align communications and electronic systems. The Low End Oscilloscope is a hand-held portable device used to adjust, repair, and align communications and electronic systems. The Radio Frequency (RF) Power Meter Test Set is a solid-state, microprocessor based RF microwatt meter. It has the ability to measure oscillator power, gain, insertion loss, RF attenuation, and antenna, low-power transmitter, signal generator, standing wave ratio and return loss measurements with directional couplers and slotted lines on radios, satellite communication systems and RADAR systems (Sentinel and Patriot). The Optical Time Domain Reflectometer will be used to test fiber optic cables used to connect computer networks. The TS-4549 Radio Test Set will be used to test, troubleshoot and repair Army radios. It supports both ground and air communications systems. Future acquisitions for this program will include the CM-523 Signal Generator. By using a streamlined acquisition process, the TEMOD program realizes discounts of up to 55 percent from the manufacturers' suggested retail prices.

Army Acquisition Objective (AAO): Telecommunications System Test Set - 495; Oscilloscope (High End) - 495; Oscilloscope (Low End) - 1294; RF Power Meter Test Set - 586; Optical Time Domain Reflectometer - 455; Radio Test Set -1519

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
Army	Quantity	617	481	309	-	309	579	139	267	267
	Total Obligation Authority	6.878	5.728	14.941	-	14.941	17.398	14.459	13.697	13.691
ANG	Quantity	540	420	-	-	-	-	-	-	-
	Total Obligation Authority	1.518	5.004	-	-	-	-	-	-	-
AR	Quantity	289	224	-	-	-	-	-	-	-
	Total Obligation Authority	0.920	2.683	-	-	-	-	-	-	-

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2021 Army							Date: February 2020		
Appropriation / Budget Activity / Budget Sub Activity: 2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 80: Test Measure and Dig Equipment (TMD)					P-1 Line Item Number / Title: 0600N11000 / Test Equipment Modernization (TEMOD)				
ID Code (A=Service Ready, B=Not Service Ready): A			Program Elements for Code B Items: N/A			Other Related Program Elements: 0604746A			
Line Item MDAP/MAIS Code: N/A									

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
Total:	Quantity	1,446	1,125	309	-	309	579	139	267	267
Secondary Distribution	Total Obligation Authority	9.316	13.415	14.941	-	14.941	17.398	14.459	13.697	13.691

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 80: Test Measure and Dig Equipment (TMD) **P-1 Line Item Number / Title:** 0600N11000 / Test Equipment Modernization (TEMOD)

ID Code (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** N/A **Other Related Program Elements:** 0604746A

Line Item MDAP/MAIS Code: N/A

Exhibits Schedule					Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-5	N11000 / Test Equipment Modernization (TEMOD)	P-5a	A		1,203 / 339.671	1,446 / 9.316	1,125 / 13.415	309 / 14.941	- / -	309 / 14.941
P-40	Total Gross/Weapon System Cost				1,203 / 339.671	1,446 / 9.316	1,125 / 13.415	309 / 14.941	- / -	309 / 14.941

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

Justification:
 FY 2021 Base procurement dollars in the amount of \$14.941 million support initial acquisition of the TS-4549 Radio Test Set and acquisition of additional quantities of the Telecommunications System Test Set and the Low End Oscilloscope. TEMOD uses multi-year Indefinite Delivery, Indefinite Quantity, Firm Fixed Price contracts to reduce costs and accommodate changes in acquisition requirements. Procurements in FY 2021 include (215) TS-4544 Telecommunication Systems Test Sets, (74) OS-307 Oscilloscopes, and (20) TS-4549 Radio Test Sets. All these procurements are needed based on the approved Army Acquisition Objectives. Lack of capabilities provided by this equipment will impact unit readiness levels and incur unnecessary risks for Army personnel and equipment. FY 2021 funding has been increased to accelerate production of the TS-4549 to replace the GRM-122 which will be unsupported by FY 2021. The TS-4549 will support 645,822 legacy radio systems and new radios as they come on line; and, it will be able to test, reprogram and update Software Defined Radios (SDR) the GRM-122 cannot support.

In FY 2021, \$0.178 million in Reimbursable Manpower for TEMOD has been realigned from Reimbursable Civilian Funding to Direct Operations and Maintenance. Program support costs have been accurately updated to reflect the realignments.

FY 2019 quantity is 1,284. Decrease in quantity resulted from funding reduction.

In accordance with Section 1815 of the FY 2008 National Defense Authorization Act (P.L. 110-181), this item is necessary for use by the active and reserve components of the Armed Forces for homeland defense missions, domestic emergency responses, and providing military support to civil authorities.

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 80	P-1 Line Item Number / Title: 0600N11000 / Test Equipment Modernization (TEMOD)	Item Number / Title [DODIC]: N11000 / Test Equipment Modernization (TEMOD)

ID Code (A=Service Ready, B=Not Service Ready) : A	MDAP/MAIS Code:
-----------------------------------------------------------	------------------------

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Procurement Quantity (<i>Units in Each</i>)	1,203	1,446	1,125	309	-	309
Gross/Weapon System Cost (<i>\$ in Millions</i>)	339.671	9.316	13.415	14.941	-	14.941
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	339.671	9.316	13.415	14.941	-	14.941
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	339.671	9.316	13.415	14.941	-	14.941

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Thousands</i>)	282.353	6.443	11.924	48.353	-	48.353

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
Hardware Cost																		
Recurring Cost																		
Telecommunications System Test Set ^(†)	35.000	20	0.700	-	-	-	40.000	61	2.440	41.200	215	8.858	-	-	-	41.200	215	8.858
Oscilloscope High End, OS-305 ^(†)	3.553	47	0.167	3.550	440	1.562	3.582	122	0.437	-	-	-	-	-	-	-	-	-
Radio Frequency (RF) Power Meter Test Set ^(†)	5.950	20	0.119	5.932	340	2.017	5.934	226	1.341	-	-	-	-	-	-	-	-	-
Oscilloscope Low End, OS-307 ^(†)	4.181	320	1.338	4.179	504	2.106	4.180	696	2.909	4.176	74	0.309	-	-	-	4.176	74	0.309
Radio Test Set, AN/PRM-36	1.700	8,642	14.691	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Optical Time Domain Reflectometer, TS-4558 ^(†)	-	-	-	-	-	-	9.000	20	0.180	-	-	-	-	-	-	-	-	-
Radio Test Set, TS-4549 ^(†)	-	-	-	-	-	-	-	-	-	66.000	20	1.320	-	-	-	66.000	20	1.320
Maintenance Fixtures	-	-	3.988	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Support Equipment	430.138	616	264.965	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Recurring Cost</i>	<i>-</i>	<i>-</i>	<i>285.968</i>	<i>-</i>	<i>-</i>	<i>5.685</i>	<i>-</i>	<i>-</i>	<i>7.307</i>	<i>-</i>	<i>-</i>	<i>10.487</i>	<i>-</i>	<i>-</i>	<i>-</i>	<i>-</i>	<i>-</i>	<i>10.487</i>
<i>Subtotal: Hardware Cost</i>	<i>-</i>	<i>-</i>	<i>285.968</i>	<i>-</i>	<i>-</i>	<i>5.685</i>	<i>-</i>	<i>-</i>	<i>7.307</i>	<i>-</i>	<i>-</i>	<i>10.487</i>	<i>-</i>	<i>-</i>	<i>-</i>	<i>-</i>	<i>-</i>	<i>10.487</i>
Package Fielding Cost																		

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army												Date: February 2020					
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 80						P-1 Line Item Number / Title: 0600N11000 / Test Equipment Modernization (TEMOD)						Item Number / Title [DODIC]: N11000 / Test Equipment Modernization (TEMOD)					
ID Code (A=Service Ready, B=Not Service Ready) : A												MDAP/MAIS Code:					

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
Recurring Cost																		
New Equipment Training/Fielding Support	-	-	2.946	-	-	-	-	-	0.200	-	-	0.200	-	-	-	-	-	0.200
<i>Subtotal: Recurring Cost</i>	-	-	2.946	-	-	-	-	-	0.200	-	-	0.200	-	-	-	-	-	0.200
<i>Subtotal: Package Fielding Cost</i>	-	-	2.946	-	-	-	-	-	0.200	-	-	0.200	-	-	-	-	-	0.200
Logistics Cost																		
Recurring Cost																		
Logistics Services/Support	-	-	1.920	-	-	0.743	-	-	1.258	-	-	1.040	-	-	-	-	-	1.040
<i>Subtotal: Recurring Cost</i>	-	-	1.920	-	-	0.743	-	-	1.258	-	-	1.040	-	-	-	-	-	1.040
<i>Subtotal: Logistics Cost</i>	-	-	1.920	-	-	0.743	-	-	1.258	-	-	1.040	-	-	-	-	-	1.040
Support - Acceptance Testing Cost																		
Acceptance Test	-	-	-	-	-	-	-	-	0.100	-	-	-	-	-	-	-	-	-
<i>Subtotal: Support - Acceptance Testing Cost</i>	-	-	-	-	-	-	-	-	0.100	-	-	-	-	-	-	-	-	-
Support - Data Cost																		
Support Data Data	-	-	5.766	-	-	-	-	-	1.100	-	-	-	-	-	-	-	-	-
<i>Subtotal: Support - Data Cost</i>	-	-	5.766	-	-	-	-	-	1.100	-	-	-	-	-	-	-	-	-
Support - Engineering Change Proposals Cost																		
Engineering Change Proposals	-	-	0.915	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Support - Engineering Change Proposals Cost</i>	-	-	0.915	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Support - Initial Spares and Repair Parts Cost																		
Initial Spares and Repair Parts	-	-	2.124	-	-	0.030	-	-	0.030	-	-	-	-	-	-	-	-	-
<i>Subtotal: Support - Initial Spares and Repair Parts Cost</i>	-	-	2.124	-	-	0.030	-	-	0.030	-	-	-	-	-	-	-	-	-
Support - Production Engineering Cost																		
Production Engineering	-	-	7.591	-	-	1.486	-	-	1.911	-	-	1.952	-	-	-	-	-	1.952
<i>Subtotal: Support - Production Engineering Cost</i>	-	-	7.591	-	-	1.486	-	-	1.911	-	-	1.952	-	-	-	-	-	1.952
Support - Program Management Cost																		

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 80	P-1 Line Item Number / Title: 0600N11000 / Test Equipment Modernization (TEMOD)	Item Number / Title [DODIC]: N11000 / Test Equipment Modernization (TEMOD)

ID Code (A=Service Ready, B=Not Service Ready) : A	MDAP/MAIS Code:
-----------------------------------------------------------	------------------------

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
Government Management	-	-	23.278	-	-	0.471	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Support - Program Management Cost</i>	-	-	23.278	-	-	0.471	-	-	-	-	-	-	-	-	-	-	-	-
Support - Quality Assurance Cost																		
Quality Assurance	-	-	0.400	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Support - Quality Assurance Cost</i>	-	-	0.400	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Support - System Technical Support (STS) Cost																		
System Technical Support (STS)	-	-	8.763	-	-	0.901	-	-	1.509	-	-	1.262	-	-	-	-	-	1.262
<i>Subtotal: Support - System Technical Support (STS) Cost</i>	-	-	8.763	-	-	0.901	-	-	1.509	-	-	1.262	-	-	-	-	-	1.262
Gross/Weapon System Cost	282.353	1,203	339.671	6.443	1,446	9.316	11.924	1,125	13.415	48.353	309	14.941	-	-	-	48.353	309	14.941

Remarks:
In FY 2021, \$0.178 million in Reimbursable Manpower for TEMOD has been realigned from Reimbursable Civilian funding to Direct Operations and Maintenance. Program support costs have been accurately updated to reflect the realignments.

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Army	Quantity	617	481	309	-	309
	Total Obligation Authority	6.878	5.728	14.941	-	14.941
ANG	Quantity	540	420	-	-	-
	Total Obligation Authority	1.518	5.004	-	-	-
AR	Quantity	289	224	-	-	-
	Total Obligation Authority	0.920	2.683	-	-	-
Total:	Quantity	1,446	1,125	309	-	309
Secondary Distribution	Total Obligation Authority	9.316	13.415	14.941	-	14.941

(†) indicates the presence of a P-5a

UNCLASSIFIED

Exhibit P-5a, Procurement History and Planning: PB 2021 Army								Date: February 2020				
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 80			P-1 Line Item Number / Title: 0600N11000 / Test Equipment Modernization (TEMOD)					Item Number / Title [DODIC]: N11000 / Test Equipment Modernization (TEMOD)				

Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty (Each)	Unit Cost (\$ K)	Specs Avail Now?	Date Revision Available	RFP Issue Date
Telecommunications System Test Set		2018	Viavi Solutions, Inc. / Germantown, MD	C / FFP	ACC-New Jersey	Jun 2019	Sep 2019	20	35.000	Y		
Telecommunications System Test Set		2020	Viavi Solutions, Inc. / Germantown, MD	C / FFP	ACC-New Jersey	Feb 2020	Jun 2020	61	40.000	Y		
Telecommunications System Test Set		2021	Viavi Solutions, Inc. / Germantown, MD	C / FFP	ACC-NJew Jersey	Feb 2021	May 2021	215	41.200	Y		
Oscilloscope High End, OS-305		2019	Keysight Technologies, Inc. / Englewood, CO	C / FFP	ACC-Redstone	Mar 2020	Jul 2020	440	3.550	Y		
Oscilloscope High End, OS-305		2020	Keysight Technologies, Inc. / Englewood, CO	C / FFP	ACC-Redstone	Aug 2020	Dec 2020	122	3.582	Y		
Radio Frequency (RF) Power Meter Test Set		2019	Anritsu Company / Morgan Hill, CA	C / FFP	ACC-Redstone	May 2020	Aug 2020	340	5.932	Y		
Radio Frequency (RF) Power Meter Test Set		2020	Anritsu Company / Morgan Hill, CA	C / FFP	ACC-Redstone	Aug 2020	Dec 2020	226	5.934	Y		
Oscilloscope Low End, OS-307		2019	Keysight Technologies, Inc. / Englewood, CO	C / FFP	ACC-Redstone	Mar 2020	Jul 2020	504	4.179	Y		
Oscilloscope Low End, OS-307		2020	Keysight Technologies, Inc. / Englewood, CO	C / FFP	ACC-Redstone	Sep 2020	Dec 2020	696	4.180	Y		
Oscilloscope Low End, OS-307		2021	Keysight Technologies, Inc. / Englewood, CO	C / FFP	ACC-Redstone	Feb 2021	Jun 2021	74	4.176	Y		
Optical Time Domain Reflectometer, TS-4558		2020	TBS-2 / TBD	C / FFP	ACC-Redstone	May 2020	Oct 2020	20	9.000	Y		Dec 2019
Radio Test Set, TS-4549		2021	TBS-3 / TBD	C / FFP	ACC-New Jersey	Jun 2021	Dec 2021	20	66.000	Y		Apr 2019

Remarks:
The Telecommunications System Test Set, the High End Oscilloscope, the RF Power Meter Test Set, the Low End Oscilloscope and the Optical Time Domain Reflectometer are commercial off-the-shelf (COTS) items.

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 90: Other Support Equipment	P-1 Line Item Number / Title: 0000M62550 / M25 STABILIZED BINOCULAR
-----------------------------------------------------------------------------------------------------------------------------------------------------------------------	-------------------------------------------------------------------------------

ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
----------------------------------------------------------	-----------------------------------------------	--------------------------------------------

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	967	769	-	-	-	-	-	-	-	-	Continuing	Continuing
Gross/Weapon System Cost (<i>\$ in Millions</i>)	20.418	4.368	-	-	-	-	-	-	-	-	Continuing	Continuing
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	20.418	4.368	-	-	-	-	-	-	-	-	Continuing	Continuing
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	20.418	4.368	-	-	-	-	-	-	-	-	Continuing	Continuing

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Thousands</i>)	21.115	5.680	-	-	-	-	-	-	-	-	Continuing	Continuing

Description:

The Stabilized Binocular provides the Soldier, both mounted and dismounted, with enhanced target acquisition capability. The M25 is a high powered (14X magnification), hand held binocular which uses a gyro stabilizer to compensate for resolution degrading effects of using a hand held high powered optic and/or certain moving vehicular scenarios. The M25A1 is a smaller, lighter weight stabilized binocular which will allow the warfighter to more effectively perform mission than with the heavier version of the M25. The authorized Army Acquisition Objective (AAO) is 11,654.

Secondary Distribution	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
Army									
Quantity	769	-	-	-	-	-	-	-	-
Total Obligation Authority	4.368	-	-	-	-	-	-	-	-
Total:	769	-	-	-	-	-	-	-	-
Secondary Distribution	Total Obligation Authority	4.368	-	-	-	-	-	-	-

Justification:

No FY 2021 Request.

In accordance with Section 1815 of the FY 2008 National Defense Authorization Act (P.L. 110-181), this item is necessary for use by the active and reserve components of the Armed Forces for homeland defense missions, domestic emergency responses, and providing military support to civil authorities.

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 90: Other Support Equipment	P-1 Line Item Number / Title: 0017M80101 / Rapid Equipping Soldier Support Equipment
-----------------------------------------------------------------------------------------------------------------------------------------------------------------------	------------------------------------------------------------------------------------------------

ID Code (A=Service Ready, B=Not Service Ready):	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
--------------------------------------------------------	-----------------------------------------------	--------------------------------------------

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	2,653.369	22.429	27.877	8.629	8.500	17.129	10.610	10.365	9.889	9.990	-	2,761.658
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	2,653.369	22.429	27.877	8.629	8.500	17.129	10.610	10.365	9.889	9.990	-	2,761.658
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	2,653.369	22.429	27.877	8.629	8.500	17.129	10.610	10.365	9.889	9.990	-	2,761.658

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The REF is the Army's Quick Reaction Capability (QRC) with the ability to acquire, integrate and sustain Commercial-Off-The Shelf (COTS), Government Off-The-Shelf (GOTS), Non-Developmental Item (NDI), and Non-Standard Equipment (NSE) solutions to meet urgent combat requirements for globally employed forces. It inserts selected future force technologies, capabilities, and surrogate materiel solutions into deployed, deploying, select-prepared to deploy, and transformational forces for operational evaluation, assessment, and evolutionary development. The REF assesses the provided capabilities to improve future solutions to inform materiel development for the future Army capability requirements and to potentially transition the capability to an Army acquisition program.

The Rapid Equipping Force (REF) supports Combatant Command (COCOMs)/Army Service Component Command (ASCCs) based on emerging rapid equipment requirements. The REF is an enduring organization (Base funded) per Memorandum, Under Secretary of the Army, 30 Jan 2014, subject: Implementation Plan for Stabilization of the Rapid Equipping Force (REF).

The REF bridges the gap between the Army's traditional acquisition process and immediate equipping needs. The REF pursues tangible solutions that can be equipped rapidly with a goal of 180 days. The REF focuses on finding immediate and effective game-changing capabilities to increase U.S. Army Force readiness, effectiveness, protection, and lethality in any operational environment. The REF 10-Liner process provides the ability to react quickly to an ever-changing enemy who changes in days and months, not years in a complex world. The REF coordinates with the COCOMs/ASCCs in theater to fully understand their urgent needs, for which the REF acquisition capability may identify, procure, deliver, and sustain solutions to the deployed units. Although the REF works directly with Operational Commanders at all levels, it focuses on Brigade level and below to equip solutions to identified capability gaps.

The Army Acquisition Executive designated Program Executive Office (PEO) Soldier as the Milestone Decision Authority (MDA) to institutionalize the acquisition authorities in support of the REF and to provide proper acquisition oversight while enhancing visibility of these efforts. The MDA will ensure flexibility and speed focused on the needs of Soldiers serviced by the dedicated REF Program Management Office (PMO). This establishes a formal acquisition reporting chain that leverages existing reporting venues to ensure appropriate Assistant Secretary of the Army /Acquisition Logistics/Technology (ASA (ALT)) visibility, oversight, and direction.

Secondary Distribution	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
Army									
Quantity	-	-	-	-	-	-	-	-	-
Total Obligation Authority	22.429	27.877	8.629	8.500	17.129	10.610	10.365	9.889	9.990

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2021 Army							Date: February 2020		
Appropriation / Budget Activity / Budget Sub Activity: 2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 90: Other Support Equipment					P-1 Line Item Number / Title: 0017M80101 / Rapid Equipping Soldier Support Equipment				
ID Code (A=Service Ready, B=Not Service Ready):			Program Elements for Code B Items: N/A			Other Related Program Elements: N/A			
Line Item MDAP/MAIS Code: N/A									

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
Total:	Quantity	-	-	-	-	-	-	-	-	-
Secondary Distribution	Total Obligation Authority	22.429	27.877	8.629	8.500	17.129	10.610	10.365	9.889	9.990

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 90: Other Support Equipment **P-1 Line Item Number / Title:** 0017M80101 / Rapid Equipping Soldier Support Equipment

ID Code (A=Service Ready, B=Not Service Ready): **Program Elements for Code B Items:** N/A **Other Related Program Elements:** N/A

Line Item MDAP/MAIS Code: N/A

Exhibits Schedule					Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-5	M80101 / Rapid Equipping Soldier Support Equipment				- / 2,653.369	- / 22.429	- / 27.877	- / 8.629	- / 8.500	- / 17.129
P-40	Total Gross/Weapon System Cost				- / 2,653.369	- / 22.429	- / 27.877	- / 8.629	- / 8.500	- / 17.129

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

Justification:

FY 2021 Base procurement dollars in the amount of \$8.629 million meets urgently needed technology for immediate warfighter needs for deployed and pre-deploying forces across all ASCCs of the COCOMs and the Global Response Force (GRF).

FY 2021 OCO procurement dollars in the amount of \$8.500 million is required to support emerging requirements to meet capability gaps in Operation Freedom Sentinel (OFS), Operation Inherent Resolve (OIR), Operation Atlantic Resolve (OAR), Horn of Africa (HOA), and all other OCO funded operations/regions. Funding supports meeting urgently needed technology for immediate warfighter needs for deployed and pre-deploying forces across all ASCCs of the COCOMs and the Global Response Force (GRF).

The REF capabilities cross all Warfighter Functions:

1. Mission Command
2. Movement and Maneuver
3. Intelligence
4. Fires
5. Sustainment
6. Protection

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 90	P-1 Line Item Number / Title: 0017M80101 / Rapid Equipping Soldier Support Equipment	Item Number / Title [DODIC]: M80101 / Rapid Equipping Soldier Support Equipment

ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:
---------------------------------------------------------	------------------------

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Procurement Quantity (Units in Each)	-	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	2,653.369	22.429	27.877	8.629	8.500	17.129
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	2,653.369	22.429	27.877	8.629	8.500	17.129
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	2,653.369	22.429	27.877	8.629	8.500	17.129

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (\$ in Millions)	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Thousands)	-	-	-	-	-	-

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
Flyaway Cost																		
Recurring Cost																		
Dismounted IED Defeat	-	-	403.524	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mission Command	-	-	6.527	-	-	1.533	-	-	1.905	-	-	0.604	-	-	0.595	-	-	1.199
Movement and Maneuver	-	-	12.910	-	-	3.953	-	-	4.914	-	-	1.456	-	-	1.434	-	-	2.890
Intelligence	-	-	5.492	-	-	6.212	-	-	7.721	-	-	2.592	-	-	2.553	-	-	5.145
Fires	-	-	0.464	-	-	0.161	-	-	0.201	-	-	0.142	-	-	0.140	-	-	0.282
Sustainment	-	-	6.188	-	-	2.743	-	-	3.409	-	-	0.639	-	-	0.630	-	-	1.269
Protection	-	-	12.422	-	-	7.827	-	-	9.727	-	-	3.196	-	-	3.148	-	-	6.344
Small COP/PB Sustainment	-	-	3.389	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Small COP/PB Force Protection	-	-	470.283	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dismounted Operations Support	-	-	348.798	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ISR Shortfalls In Inhospitable OE's	-	-	356.468	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dismounted Blue Force Tracking Mission	-	-	1.500	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other (Current Requirements)	-	-	1,025.404	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 90	P-1 Line Item Number / Title: 0017M80101 / Rapid Equipping Soldier Support Equipment	Item Number / Title [DODIC]: M80101 / Rapid Equipping Soldier Support Equipment
ID Code (A=Service Ready, B=Not Service Ready) :		MDAP/MAIS Code:

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
<i>Subtotal: Recurring Cost</i>	-	-	2,653.369	-	-	22.429	-	-	27.877	-	-	8.629	-	-	8.500	-	-	17.129
<i>Subtotal: Flyaway Cost</i>	-	-	2,653.369	-	-	22.429	-	-	27.877	-	-	8.629	-	-	8.500	-	-	17.129
Gross/Weapon System Cost	-	-	2,653.369	-	-	22.429	-	-	27.877	-	-	8.629	-	-	8.500	-	-	17.129

Remarks:
Items are COTs/GOTs items.

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Army	Quantity	-	-	-	-	-
	Total Obligation Authority	22.429	27.877	8.629	8.500	17.129
Total:	Quantity	-	-	-	-	-
Secondary Distribution	Total Obligation Authority	22.429	27.877	8.629	8.500	17.129

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 90: Other Support Equipment	P-1 Line Item Number / Title: 0050MA0780 / Physical Security Systems (OPA3)
-----------------------------------------------------------------------------------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------

ID Code (A=Service Ready, B=Not Service Ready):	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
--------------------------------------------------------	-----------------------------------------------	--------------------------------------------

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	2,001.059	53.836	88.974	75.499	3.248	78.747	89.942	98.933	98.306	99.277	-	2,609.074
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	2,001.059	53.836	88.974	75.499	3.248	78.747	89.942	98.933	98.306	99.277	-	2,609.074
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	2,001.059	53.836	88.974	75.499	3.248	78.747	89.942	98.933	98.306	99.277	-	2,609.074

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

Physical Security Systems (MA0780) protect vulnerable critical assets and infrastructure from determined, highly motivated and skilled intruders. Physical Security Systems include the Standard Intrusion Detection Systems (SIDS) (MA0781), the Commercial Intrusion Detection System (CIDS) (MA0782) and Other Physical Security Measures Equipment (MA0783). SIDS includes the Integrated Commercial Intrusion Detection System (ICIDS) program and procurement of Intrusion Detection System (IDS) equipment in support of MILCON projects. Other Physical Security Measures Equipment includes the Automated Installation Entry (AIE) program and other efforts consistent with Office of Provost Marshal General (OPMG) security measures.

The Physical Security program's goal is to provide enhanced security to Units, Installations and Facilities. The Physical Security/Force Protection programs minimize risks and vulnerabilities by providing Commanders with the appropriate levels of protection through the use of available technology to safeguard personnel and Army assets. By increasing protection to personnel, facilities and equipment, the program supports unit readiness and deployment by reducing the vulnerability of Units and Installations from intruder and terrorist threats.

The ICIDS program consists of commercially available interior and exterior sensors, response, entry control, electronic surveillance and command and control devices. ICIDS protects critical national assets, special compartmented information facilities, conventional munitions storage areas, non-nuclear missiles and rockets in a ready to fire configuration, sensitive munitions and other mission essential assets. ICIDS provides the capability for Commanders to detect, assess and respond to unauthorized entry or attempted intrusion into their facilities. The system provides security to Units, Installations and Facilities while minimizing the number of security guards required. Additionally, the item includes ICIDS at new or modified facilities. ICIDS supports a balanced investment strategy for the Army approved force structure and requirements.

CIDS provides security measures for conventional arms, ammunition and explosive storage facilities, sensitive compartment information facilities, areas designed as mission essential and vulnerable and other high risk targets. Risks and vulnerabilities are minimized by providing Commanders with the appropriate levels of protection through the use of available technology to safeguard personnel and Army assets. Equipment also protects personnel, facilities and equipment from terrorist or criminal threats. The program supports unit readiness and deployment by reducing Unit and Installation vulnerability and supports the upgrades of the IDS for arms, ammunition and explosives arms vaults and ammunition supply point bunkers for National Guard Facilities that are non-compliant with current Army Directives. Additionally, the item includes IDSs at new or modified facilities. CIDS supports a balanced investment strategy for the Army's approved force structure and requirements. Equipment further protects personnel, facilities and equipment from terrorist or criminal threats. The program supports Unit readiness and deployment by reducing Unit and Installation vulnerability.

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 90: Other Support Equipment	P-1 Line Item Number / Title: 0050MA0780 / Physical Security Systems (OPA3)
-----------------------------------------------------------------------------------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------

ID Code (A=Service Ready, B=Not Service Ready):	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
--------------------------------------------------------	-----------------------------------------------	--------------------------------------------

Line Item MDAP/MAIS Code: N/A

Other Physical Security Measures Equipment includes the Automated Installation Entry (AIE) system which complies with DTM 09-012 for Access Control Standards that includes identity proofing and vetting to determine fitness of an individual requesting and/or requiring access to Installations and issuance of local access credentials. AIE satisfies the OPMG's Automated Access Control Standards. Installation of AIE will also meet recommendation 3.9 of the DOD Independent Review related to Ft Hood, TX.

Note: These are non-standard programs and do not have AAO's.

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
Army	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	53.836	88.974	75.499	3.248	78.747	89.942	98.933	98.306	99.277
Total: Secondary Distribution	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	53.836	88.974	75.499	3.248	78.747	89.942	98.933	98.306	99.277

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 90: Other Support Equipment	P-1 Line Item Number / Title: 0050MA0780 / Physical Security Systems (OPA3)
-----------------------------------------------------------------------------------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------

ID Code (A=Service Ready, B=Not Service Ready):	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
--------------------------------------------------------	-----------------------------------------------	--------------------------------------------

Line Item MDAP/MAIS Code: N/A

Exhibits Schedule					Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-5	MA0781 / Standardized Intrusion Detection Systems	P-5a, P-21	A		- / 349.743	- / 10.665	- / 32.210	- / 21.513	- / 3.248	- / 24.761
P-5	MA0782 / Commercial Intrusion Detection Systems (IDS)	P-5a			- / 263.042	- / 4.763	- / 10.963	- / 9.356	- / -	- / 9.356
P-5	MA0783 / Other Physical Security Measures Equip	P-5a, P-21			- / 1,388.274	- / 38.408	- / 45.801	- / 44.630	- / -	- / 44.630
P-40	Total Gross/Weapon System Cost				- / 2,001.059	- / 53.836	- / 88.974	- / 75.499	- / 3.248	- / 78.747

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

Justification:
 FY2021 Base procurement funding in the amount of \$78.825 million provides funding for SIDS (MA0781) in the amount of \$24.783 million, CIDS (MA0782) in the amount of \$9.366 million and Other Physical Security Measures Equipment in the amount of \$44.676 million:

-\$24.783 million provides installation of ICIDS (MA0781) at three (3) sites: Crane AAP, IN; Anniston, AL; and Holston AAP, TN and Windows 10 conversions for non-compliant ICIDS. Funding also provides procurement and installation of IDS equipment in support of MILCON projects. Funding supports a balanced investment strategy for the Army approved force structure and requirements. All ICIDS quantities and funding are for Active Components.

-\$9.366 million for CIDS (MA0782) supports procuring six (6) sites of modernized integrated physical security equipment for intrusion detection and assessment, access control, electronic surveillance and force protection equipment at Army Reserve and National Guard Facilities and some Active Army locations. Funding provides security measures for conventional arms, ammunition and explosive storage facilities, sensitive compartment information facilities and other areas containing assets for which policy requires Intrusion Detection Systems. Risks and vulnerabilities are minimized by providing Commanders with the appropriate levels of protection through the use of available technology to safeguard personnel and Army assets. Funding supports a balanced investment strategy for the Army's approved force structure and requirements. All quantities and funding is for Active Components.

-\$32.199 million procures AIE (MA0783) systems at nineteen (19) AIE-4 Pure Fleet sites: Rock Island, IL; Fort Bragg, NC; MOTSU, NC; Fort Benning, GA; Fort Stewart, GA; Fort Gordon, GA; Blue Grass AD, KY; Fort Knox, KY; Fort Wainwright, AK; Fort Greely, AK; Fort Polk, LA; Fort Leonard Wood, MO; Lake City AAP, MO; Fort Carson, CO; Pueblo CD, CO; White Sands MR, NM; McAlester AAP, OK; Fort Bliss, TX; and Fort Hood, TX as prioritized by OPMG. The AIE systems will be Pure Fleeted from AIE-2 to AIE-4 software to protect Army force projection platforms and high priority Installations. The system complies with DTM 09-112 for Access Control Standards that include identity validation and vetting to determine fitness of an individual requesting and/or requiring access to installations. The AIE system satisfies the OPMG's Automated Access Control Standards. Installation of the AIE will also meet recommendation 3.9 of the DOD Independent Review related to Fort Hood, TX. ACEP provides standardized access control point configurations. All quantities and funding are for Active Components.

-\$11.933 million procures Access Control Point (ACP) Physical Security Equipment Modernization at three (3) Installations: West Point, FT Knox, Anniston AD; and AIE Site Preparation (MA0783) at twenty (20) Installations: Dugway PG, Scranton AAP, Fort Pickett, Camp Guernsey, Milan AAP, Camp Shelby, JSMC Lima, Ford RTC, Camp Santiago, Ft Buchanan, Arlington National Cemetery, Ft Jackson, Ft Indiantown Gap, Schofield Barracks, Ft Shafter, Wheeler AAF, Helemano, Pohakuloa Training Area, Yakima Training Center.

-\$0.494 million procures Defense Biometric Identification System (DBIDS) 5 (MA0783) at sixteen (16) installations located throughout Europe; Germany, Italy, Belgium, and the Netherlands, for total of 102 Access Control Points (ACPs) and 22 Enhance Pedestrian Security Gates (ESPG). The current access control employed by USAREUR is DBIDS 3.1 is end of life and is scheduled to be replaced by DBIDS 5 in 2020. DBIDS 5 is to be used by USEUCOM components to electronically authenticate the 4M monthly access requests and 95K visitors at over 154 access control points at 85 U.S. military installations overseas.

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 90: Other Support Equipment		P-1 Line Item Number / Title: 0050MA0780 / Physical Security Systems (OPA3)
ID Code (A=Service Ready, B=Not Service Ready):	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
Line Item MDAP/MAIS Code: N/A		
- \$0.050 million procures updated NCO physical security training materiel		

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 90		P-1 Line Item Number / Title: 0050MA0780 / Physical Security Systems (OPA3)
		Item Number / Title [DODIC]: MA0781 / Standardized Intrusion Detection Systems

ID Code (A=Service Ready, B=Not Service Ready) : A	MDAP/MAIS Code:
-----------------------------------------------------------	------------------------

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Procurement Quantity (Units in Each)	-	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	349.743	10.665	32.210	21.513	3.248	24.761
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	349.743	10.665	32.210	21.513	3.248	24.761
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	349.743	10.665	32.210	21.513	3.248	24.761

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (\$ in Millions)	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Thousands)	-	-	-	-	-	-

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
Flyaway Cost																		
Recurring Cost																		
Hardware ^(†)	6,424.625	8	51.397	2,102.333	3	6.307	9,298.667	3	27.896	3,180.667	3	9.542	-	-	-	3,180.667	3	9.542
Program Management Support*	-	-	7.034	-	-	1.436	-	-	1.441	-	-	1.487	-	-	-	-	-	1.487
SETA Contract Support*	-	-	4.535	-	-	1.335	-	-	1.270	-	-	1.389	-	-	-	-	-	1.389
Prime Contractor PM	-	-	5.348	-	-	1.587	-	-	1.603	-	-	1.651	-	-	-	-	-	1.651
IDS Procurement in Support of MILCON Projects	-	-	-	-	-	-	-	-	-	-	-	7.444	-	-	3.248	-	-	10.692
<i>Subtotal: Recurring Cost</i>	-	-	68.314	-	-	10.665	-	-	32.210	-	-	21.513	-	-	3.248	-	-	24.761
<i>Subtotal: Flyaway Cost</i>	-	-	68.314	-	-	10.665	-	-	32.210	-	-	21.513	-	-	3.248	-	-	24.761
Support - Data Cost																		
Support Data Data	-	-	281.429	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Support - Data Cost</i>	-	-	281.429	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost	-	-	349.743	-	-	10.665	-	-	32.210	-	-	21.513	-	-	3.248	-	-	24.761

Remarks:

* ICIDS Program Management and SETA support reflect the non-standard program which installs physical intrusion detection systems in Army Installation facilities. This requires higher than normal oversight of prime contractor quality control, site survey, site unique design, training, testing, and first year contractor logistics support.

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 90	P-1 Line Item Number / Title: 0050MA0780 / Physical Security Systems (OPA3)	Item Number / Title [DODIC]: MA0781 / Standardized Intrusion Detection Systems
ID Code (A=Service Ready, B=Not Service Ready) : A		MDAP/MAIS Code:

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Army	Quantity	-	-	-	-	-
	Total Obligation Authority	10.665	32.210	21.513	3.248	24.761
Total:	Quantity	-	-	-	-	-
Secondary Distribution	Total Obligation Authority	10.665	32.210	21.513	3.248	24.761

(†) indicates the presence of a P-5a

UNCLASSIFIED

Exhibit P-5a, Procurement History and Planning: PB 2021 Army							Date: February 2020				
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 90			P-1 Line Item Number / Title: 0050MA0780 / Physical Security Systems (OPA3)				Item Number / Title [DODIC]: MA0781 / Standardized Intrusion Detection Systems				

Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty <i>(Each)</i>	Unit Cost <i>(\$ K)</i>	Specs Avail Now?	Date Revision Available	RFP Issue Date
Hardware ^(†)		2019	Minuteman Security Solutions / New Bern, NC	Option / IDIQ	Ft. Belvoir, VA	Mar 2019	Apr 2020	3	2,102.333	Y		
Hardware ^(†)		2020	Minuteman Security Solutions / New Bern, NC	Option / IDIQ	Ft. Belvoir, VA	Mar 2020	Jun 2021	3	9,298.667	Y		
Hardware ^(†)		2021	Minuteman Security Solutions / New Bern, NC	Option / IDIQ	Ft. Belvoir, VA	Mar 2021	Jul 2022	3	3,180.667	Y		

^(†) indicates the presence of a P-21

UNCLASSIFIED

Exhibit P-21, Production Schedule: PB 2021 Army															Date: February 2020									
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 90										P-1 Line Item Number / Title: 0050MA0780 / Physical Security Systems (OPA3)										Item Number / Title [DODIC]: MA0781 / Standardized Intrusion Detection Systems				

Cost Elements <i>(Units in Each)</i>						Fiscal Year 2021													Fiscal Year 2022													BALANCE	
O C C #	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2020	BAL DUE AS OF 1 OCT	Calendar Year 2021													Calendar Year 2022													
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P			
Hardware																																	
Prior Years Deliveries: 8																																	
1		2019	ARMY	3	2	1	1																							0			
1		2020	ARMY	3	0	3	-	-	-	-	-	-	-	-	1	1	1														0		
1		2021	ARMY	3	0	3																								2			
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P			

UNCLASSIFIED

Exhibit P-21, Production Schedule: PB 2021 Army															Date: February 2020														
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 90										P-1 Line Item Number / Title: 0050MA0780 / Physical Security Systems (OPA3)										Item Number / Title [DODIC]: MA0781 / Standardized Intrusion Detection Systems									

Cost Elements <i>(Units in Each)</i>						Fiscal Year 2023													Fiscal Year 2024													BALANCE	
O C C #	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2022	BAL DUE AS OF 1 OCT	Calendar Year 2023													Calendar Year 2024													
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P			

Hardware																																		
Prior Years Deliveries: 8																																		
1	2019	ARMY		3	3	0																												0
1	2020	ARMY		3	3	0																												0
1	2021	ARMY		3	1	2	1	-	-	1																								0

UNCLASSIFIED

Exhibit P-21, Production Schedule: PB 2021 Army							Date: February 2020					
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 90				P-1 Line Item Number / Title: 0050MA0780 / Physical Security Systems (OPA3)				Item Number / Title [DODIC]: MA0781 / Standardized Intrusion Detection Systems				
MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Month)			Procurement Leadtime (Months)							
		MSR For 2021	1-8-5 For 2021	MAX For 2021	Initial				Reorder			
					ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1	ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1
1	Minuteman Security Solutions - New Bern, NC	1	1	1	0	4	6	10	0	0	0	0

Remarks:
 Contract Option years are awarded in Mar of the FY. ICIDS Installations take approximately 12 to 18 months to complete from award of Delivery Order, extremely large installations can take up to 30 months to complete.

A = Active Component (COMPO1)
 ANG = National Guard (COMPO2)
 AR = Army Reserve (COMPO3)

"A" in the Delivery Schedule indicates the Contract Award Date.

Note: Due to space limitations, quantities in the Exhibit P-21 delivery calendar are truncated and rounded based on the maximum quantity in the calendar as follows. If the maximum quantity is less than or equal to than 9,999, all quantities are shown as each. If the maximum quantity is between 10,000 and 999,999 all quantities are shown in thousands. If the maximum quantity is between 1,000,000 and 999,999,999 all quantities are shown in millions (rounded to the nearest thousand). If the maximum quantity is equal or greater than 1,000,000,000 all quantities are shown in billions (rounded to the nearest million).

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 90	P-1 Line Item Number / Title: 0050MA0780 / Physical Security Systems (OPA3)	Item Number / Title [DODIC]: MA0782 / Commercial Intrusion Detection Systems (IDS)

ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:
---------------------------------------------------------	------------------------

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	263.042	4.763	10.963	9.356	-	9.356
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	263.042	4.763	10.963	9.356	-	9.356
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	263.042	4.763	10.963	9.356	-	9.356

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
Flyaway Cost																		
Recurring Cost																		
Hardware ^(t)	13,844.316	19	263.042	793.833	6	4.763	1,827.167	6	10.963	1,559.333	6	9.356	-	-	-	1,559.333	6	9.356
<i>Subtotal: Recurring Cost</i>	-	-	263.042	-	-	4.763	-	-	10.963	-	-	9.356	-	-	-	-	-	9.356
<i>Subtotal: Flyaway Cost</i>	-	-	263.042	-	-	4.763	-	-	10.963	-	-	9.356	-	-	-	-	-	9.356
Gross/Weapon System Cost	-	-	263.042	-	-	4.763	-	-	10.963	-	-	9.356	-	-	-	-	-	9.356

Secondary Distribution	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Army					
Quantity	-	-	-	-	-
Total Obligation Authority	4.763	10.963	9.356	-	9.356
Total: Secondary Distribution					
Quantity	-	-	-	-	-
Total Obligation Authority	4.763	10.963	9.356	-	9.356

^(t) indicates the presence of a P-5a

UNCLASSIFIED

Exhibit P-5a, Procurement History and Planning: PB 2021 Army								Date: February 2020				
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 90			P-1 Line Item Number / Title: 0050MA0780 / Physical Security Systems (OPA3)					Item Number / Title [DODIC]: MA0782 / Commercial Intrusion Detection Systems (IDS)				
Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty (Each)	Unit Cost (\$ K)	Specs Avail Now?	Date Revision Available	RFP Issue Date
Hardware		2019	TBS / TBS	C / Various	Various	Mar 2019	Apr 2019	6	793.833	Y		
Hardware		2020	TBS / TBS	C / Various	Various	Mar 2020	Apr 2020	6	1,827.167	Y		
Hardware		2021	TBS / TBS	C / Various	Various	Mar 2021	Apr 2021	6	1,559.333	Y		

Remarks:
Procurement items are Commercial Off The Shelf (COTS) from various vendors TBD.

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 90		P-1 Line Item Number / Title: 0050MA0780 / Physical Security Systems (OPA3)
		Item Number / Title [DODIC]: MA0783 / Other Physical Security Measures Equip

ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:
---------------------------------------------------------	------------------------

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Procurement Quantity (Units in Each)	-	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	1,388.274	38.408	45.801	44.630	-	44.630
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	1,388.274	38.408	45.801	44.630	-	44.630
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	1,388.274	38.408	45.801	44.630	-	44.630

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (\$ in Millions)	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Thousands)	-	-	2,290.050	-	-	-

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
Flyaway Cost																		
Recurring Cost																		
AIE Hardware ^(†)	56,908.333	24	1,365.800	1,163.778	18	20.948	2,380.688	16	38.091	1,337.947	19	25.421	-	-	-	1,337.947	19	25.421
AIE Program Management Support*	-	-	9.817	-	-	3.057	-	-	3.265	-	-	3.134	-	-	-	-	-	3.134
AIE SETA Contract Support*	-	-	6.618	-	-	2.444	-	-	3.185	-	-	2.479	-	-	-	-	-	2.479
ACPEP	-	-	6.039	-	-	1.075	-	-	1.260	-	-	1.119	-	-	-	-	-	1.119
Advantor camera upgrade	-	-	-	-	-	6.000	-	-	-	-	-	-	-	-	-	-	-	-
USAREUR DBIDS Hardware	-	-	-	197.600	5	0.988	-	-	-	30.875	16	0.494	-	-	-	30.875	16	0.494
ACP Modernization and AIE Site Preparation	-	-	-	-	-	3.896	-	-	-	-	-	11.933	-	-	-	-	-	11.933
NCO Physical Security Training Materiels	-	-	-	-	-	-	-	-	-	-	-	0.050	-	-	-	-	-	0.050
<i>Subtotal: Recurring Cost</i>	-	-	<i>1,388.274</i>	-	-	<i>38.408</i>	-	-	<i>45.801</i>	-	-	<i>44.630</i>	-	-	-	-	-	<i>44.630</i>
<i>Subtotal: Flyaway Cost</i>	-	-	<i>1,388.274</i>	-	-	<i>38.408</i>	-	-	<i>45.801</i>	-	-	<i>44.630</i>	-	-	-	-	-	<i>44.630</i>
Gross/Weapon System Cost	-	-	1,388.274	-	-	38.408	2,290.050	-	45.801	-	-	44.630	-	-	-	-	-	44.630

Remarks:

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 90	P-1 Line Item Number / Title: 0050MA0780 / Physical Security Systems (OPA3)	Item Number / Title [DODIC]: MA0783 / Other Physical Security Measures Equip

ID Code (A=Service Ready, B=Not Service Ready) : **MDAP/MAIS Code:**

* AIE Program Management and SETA support reflect the non-standard program which installs electronic physical access control systems at Army Installation gates. This requires higher than normal oversight of prime contractor quality control, site survey, site unique design, training, testing, and first year contractor logistics support.

USAREUR FY19: 5 Cisco 9500 routers for the DBIDS 5 servers, (provided by DMDC). Cisco routers to be purchased through 409th Contracting Brigade via CHES for \$100K (includes shipping).

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Army	Quantity	-	-	-	-	-
	Total Obligation Authority	38.408	45.801	44.630	-	44.630
Total: Secondary Distribution	Quantity	-	-	-	-	-
	Total Obligation Authority	38.408	45.801	44.630	-	44.630

(t) indicates the presence of a P-5a

UNCLASSIFIED

Exhibit P-5a, Procurement History and Planning: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 90	P-1 Line Item Number / Title: 0050MA0780 / Physical Security Systems (OPA3)	Item Number / Title [DODIC]: MA0783 / Other Physical Security Measures Equip
----------------------------------------------------------------------------------	---------------------------------------------------------------------------------------	----------------------------------------------------------------------------------------

Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty <i>(Each)</i>	Unit Cost <i>(\$ K)</i>	Specs Avail Now?	Date Revision Available	RFP Issue Date
AIE Hardware ^(†)		2019	Leidos Inc. / Reston, VA	Option / IDIQ	Ft. Belvoir, VA	Jun 2019	Nov 2019	18	1,163.778	Y		
AIE Hardware ^(†)		2020	Leidos Inc. / Reston, VA	Option / IDIQ	Ft. Belvoir, VA	Oct 2019	Mar 2020	16	2,380.688	Y		
AIE Hardware ^(†)		2021	Leidos Inc. / Reston, VA	Option / IDIQ	Ft. Belvoir, VA	Oct 2020	Jan 2021	19	1,337.947	Y		

^(†) indicates the presence of a P-21

UNCLASSIFIED

Exhibit P-21, Production Schedule: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 90	P-1 Line Item Number / Title: 0050MA0780 / Physical Security Systems (OPA3)	Item Number / Title [DODIC]: MA0783 / Other Physical Security Measures Equip

Cost Elements <i>(Units in Each)</i>					Fiscal Year 2019													Fiscal Year 2020													BALANCE		
O C C #	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2018	BAL DUE AS OF 1 OCT	Calendar Year 2019													Calendar Year 2020													
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P			
AIE Hardware																																	
Prior Years Deliveries: 24																																	
1		2019	ARMY	18	0	18																							0				
1		2020	ARMY	16	0	16																							0				
1		2021	ARMY	19	0	19																							19				

UNCLASSIFIED

Exhibit P-21, Production Schedule: PB 2021 Army															Date: February 2020														
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 90										P-1 Line Item Number / Title: 0050MA0780 / Physical Security Systems (OPA3)										Item Number / Title [DODIC]: MA0783 / Other Physical Security Measures Equip									

Cost Elements <i>(Units in Each)</i>						Fiscal Year 2021												Fiscal Year 2022												BALANCE	
O C C #	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2020	BAL DUE AS OF 1 OCT	Calendar Year 2021												Calendar Year 2022												
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G		S E P

AIE Hardware																														
Prior Years Deliveries: 24																														
1	2019	ARMY	18	18	0																									0
1	2020	ARMY	16	16	0																									0
1	2021	ARMY	19	0	19	A	-	-	-	5	7	7																		0
						O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	

UNCLASSIFIED

Exhibit P-21, Production Schedule: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 90		P-1 Line Item Number / Title: 0050MA0780 / Physical Security Systems (OPA3)
		Item Number / Title [DODIC]: MA0783 / Other Physical Security Measures Equip

MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Month)			Procurement Leadtime (Months)							
		MSR For 2021	1-8-5 For 2021	MAX For 2021	Initial				Reorder			
					ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1	ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1
1	Leidos Inc. - Reston, VA	1	1	8	0	8	0	8	0	0	0	0

Remarks:
DMDC: FY19: 5 Cisco 9500 routers for the DBIDS 5 servers, (provided by DMDC). Cisco routers to be purchased through 409th Contracting Brigade via CHESS for \$100K (includes shipping).

"A" in the Delivery Schedule indicates the Contract Award Date.

Note: Due to space limitations, quantities in the Exhibit P-21 delivery calendar are truncated and rounded based on the maximum quantity in the calendar as follows. If the maximum quantity is less than or equal to than 9,999, all quantities are shown as each. If the maximum quantity is between 10,000 and 999,999 all quantities are shown in thousands. If the maximum quantity is between 1,000,000 and 999,999,999 all quantities are shown in millions (rounded to the nearest thousand). If the maximum quantity is equal or greater than 1,000,000,000 all quantities are shown in billions (rounded to the nearest million).

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 90: Other Support Equipment	P-1 Line Item Number / Title: 0312MB7000 / Base Level Common Equipment
-----------------------------------------------------------------------------------------------------------------------------------------------------------------------	----------------------------------------------------------------------------------

ID Code (A=Service Ready, B=Not Service Ready):	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
--------------------------------------------------------	-----------------------------------------------	--------------------------------------------

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	562.338	11.139	15.340	27.444	-	27.444	28.156	30.803	32.644	33.288	-	741.152
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	562.338	11.139	15.340	27.444	-	27.444	28.156	30.803	32.644	33.288	-	741.152
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	562.338	11.139	15.340	27.444	-	27.444	28.156	30.803	32.644	33.288	-	741.152

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

This program procures Base-level commercially available equipment from a list authorized by the Table of Distribution and Allowances (TDA) for Army activities but is not Army centrally managed or purchased. The equipment supports recurring and generic activities typically performed by garrisons, such as material and cargo handling, engineering and public works, port and terminal operations support. Procures new investment items or replacements for existing equipment that is over-aged, obsolete, or beyond economical repair.

Installation Management Commands existing BCE fleet is fifteen to forty years old and exceeds overall programmed life expectancy and Army set Maintenance Expenditure Limits (MEL). This program enables the Army to repair equipment after years of continual heavy use and repair parts not available due to discontinuation by the manufacturer. Continued maintenance is increasingly cost prohibitive and competes with other critical Base Operations Services for resources. When new procurement is not possible, garrisons turn to leasing equipment at an extremely high cost, over 45% more expensive over the life of the vehicle, to meet mission requirements.

US Army Criminal Investigation Command (USACIDC) Funds are required to purchase life cycle replacement and the modernization of instrumentation and equipment of the USACIDC Defense Forensics Science Center (DFSC). Funds are also used for the procurement of lifecycle replacement of USACIDC's servers, video teleconference equipment, and related information technology/audio visual equipment (IT/AV), which is generally purchased in combination for configuration and operability purposes. These items are on a 5 year life cycle. As this equipment reaches end of life, it become unreliable and unable to support upgrades, which will lead to network vulnerability and reduced performance. Equipment life cycle replacement ensures systems are maintained at proper levels.

Secondary Distribution	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
Army									
Quantity	-	-	-	-	-	-	-	-	-
Total Obligation Authority	11.139	15.340	27.444	-	27.444	28.156	30.803	32.644	33.288
Total:									
Secondary Distribution									
Quantity	-	-	-	-	-	-	-	-	-
Total Obligation Authority	11.139	15.340	27.444	-	27.444	28.156	30.803	32.644	33.288

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity:
2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 90: Other Support Equipment

P-1 Line Item Number / Title:
0312MB7000 / Base Level Common Equipment

ID Code (A=Service Ready, B=Not Service Ready): **Program Elements for Code B Items:** N/A **Other Related Program Elements:** N/A

Line Item MDAP/MAIS Code: N/A

Exhibits Schedule					Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-5	MB7000 / Base Level Common Equipment				- / 562.338	- / 11.139	- / 15.340	- / 27.444	- / -	- / 27.444
P-40	Total Gross/Weapon System Cost				- / 562.338	- / 11.139	- / 15.340	- / 27.444	- / -	- / 27.444

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

Justification:

FY21 Base procurement in the amount of \$27.444 million supports the following efforts:

Installation Management Command (IMCOM) will procure essential equipment items (\$26.617M). These items will be used to meet the immediate/daily needs of 32 Installations for new investment items or replacements for existing equipment that is over-aged, obsolete, or beyond economical repair.

US Army Criminal Investigation Command (USACIDC) funds (\$0.827) will be used to obtain:

Item 1: The Liquid Chromatograph Tandem Mass Spectrometer (LCMSMS) system (\$0.300M): The instrument is capable of separating mixtures using a liquid chromatograph. The LCMSMS system is an extremely powerful tool that can separate and aid with the positive identification and differentiation of very closely related substances, such as positional isomers of synthetic cannabinoids, cathinones, and other designer drugs, controlled, and non-controlled drugs of abuse.

If the lifecycle replacement is not funded, the USACIDC assumes unacceptable risk of equipment failure. Upon equipment failure, all evidence testing associated with this instrumentation would cease thereby impacting the investigative and judicial communities' ability to complete criminal investigations and to prosecute known criminals.

Item 2: Information Technology Servers Lifecycle replacement (\$0.527M): USACIDC requires lifecycle replacement of all existing servers providing the virtual computing and storage environments for the Military Police and CID Law Enforcement mission systems and networking equipment for the continued development of Continuity Of Operations Planning and Disaster Recovery environments, in accordance with applicable Defense Information Systems Agency and National Institute of Standards and Technology guidelines and standards. Additionally, as major legacy components of the VTC/AV system reach end-of-life, they are identified as a network vulnerability. In order to meet the Army's compliance requirements VTC and A/V equipment currently in use must be listed on the Department of Defense (DoD) approved products list (APL).

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 90	P-1 Line Item Number / Title: 0312MB7000 / Base Level Common Equipment	Item Number / Title [DODIC]: MB7000 / Base Level Common Equipment

ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:
---------------------------------------------------------	------------------------

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Procurement Quantity (Units in Each)	-	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	562.338	11.139	15.340	27.444	-	27.444
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	562.338	11.139	15.340	27.444	-	27.444
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	562.338	11.139	15.340	27.444	-	27.444

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (\$ in Millions)	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Thousands)	-	-	-	-	-	-

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
Flyaway Cost																		
Recurring Cost																		
Ammunition Cranes	9,750.000	2	19.500	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Rough Terrain Forklifts	430.000	2	0.860	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Loader Transport	402.000	1	0.402	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BCE Equipment	-	-	540.200	-	-	10.417	-	-	15.340	-	-	26.617	-	-	-	-	-	26.617
Crane Truck Mounted	352.500	2	0.705	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CID Microscope	671.000	1	0.671	-	-	0.722	-	-	-	-	-	0.827	-	-	-	-	-	0.827
<i>Subtotal: Recurring Cost</i>	-	-	562.338	-	-	11.139	-	-	15.340	-	-	27.444	-	-	-	-	-	27.444
<i>Subtotal: Flyaway Cost</i>	-	-	562.338	-	-	11.139	-	-	15.340	-	-	27.444	-	-	-	-	-	27.444
Gross/Weapon System Cost	-	-	562.338	-	-	11.139	-	-	15.340	-	-	27.444	-	-	-	-	-	27.444

Remarks:
Funding is COTS/GOTS.

Secondary Distribution	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Army	-	-	-	-	-
Quantity	-	-	-	-	-
Total Obligation Authority	11.139	15.340	27.444	-	27.444
Total:	-	-	-	-	-
Quantity	-	-	-	-	-

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 90	P-1 Line Item Number / Title: 0312MB7000 / Base Level Common Equipment	Item Number / Title [DODIC]: MB7000 / Base Level Common Equipment

ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:
---------------------------------------------------------	------------------------

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Secondary Distribution	Total Obligation Authority	11.139	15.340	27.444	-	27.444

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 90: Other Support Equipment	P-1 Line Item Number / Title: 1110MA4500 / Modification Of In-Svc Equipment (OPA-3)
-----------------------------------------------------------------------------------------------------------------------------------------------------------------------	-----------------------------------------------------------------------------------------------

ID Code (A=Service Ready, B=Not Service Ready):	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
--------------------------------------------------------	-----------------------------------------------	--------------------------------------------

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	1,264.243	65.495	106.812	32.485	-	32.485	26.533	31.370	18.718	15.482	Continuing	Continuing
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	1,264.243	65.495	106.812	32.485	-	32.485	26.533	31.370	18.718	15.482	Continuing	Continuing
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	1,264.243	65.495	106.812	32.485	-	32.485	26.533	31.370	18.718	15.482	Continuing	Continuing

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Thousands</i>)	239.485	8.489	44.357	470.797	-	470.797	349.118	348.556	263.634	218.056	Continuing	Continuing

Description:

This budget line funds Modifications of In-Service Equipment programs. It is used to develop and document material solutions and also to procure hardware, materials, and the hardware installation cost required to complete the modification. Modifications are performed to correct safety deficiencies; increase mission capabilities and interoperability; extend the useful life; improve supportability; upgrade existing technology; increase efficiency; improve readiness; modernization of legacy communications equipment and links; address obsolescence issues; and to meet new and/or changing statutory and regulatory requirements. By modifying existing equipment, the Army maintains a ready, supportable inventory of equipment that meets current requirements and regulations at a cost considerably below that of buying new equipment.

Army Watercraft Systems (AWS) support Dynamic Force Repositioning (DFR) and provides the Combatant and Multi-Domain Task Force Commander with organic waterborne lift capability that can deliver today's Army maneuver platforms and equipment, and supply bulk fuel and water across the full spectrum of operations with increased speed and lower draft; and mitigates anti-access/area denial (A2/AD) threat by providing access to shallow coastal waters, rivers, in narrow inland waterways in support of dispersed force elements in austere environments and where mature ports or road networks are unavailable. The modification of in-service equipment is critical to the success of the Army's Watercraft Transformation Strategy (AWTS) and fulfillment of the AWS Title 10 mission.

In general, all Army Watercraft funding supports initiatives to enhance the seaworthiness, safety, and survivability while increasing the lethality, tactical mobility, and operational capability of the Army Mariner to preserve the Combatant Commanders requirement of "freedom of seas" access in all areas of the world particularly the littorals, to support maneuver operations in all Areas of Responsibility.

Army Watercraft Systems are categorized under Landing Craft, Towing and Terminal Operations, Ship-to-Shore Enablers and Watercraft Operations Support. Landing Craft consist of Logistic Support Vessels (LSV), Landing Craft Utility 2000 (LCU-2000), Landing Craft Mechanized 8 (LCM-8) MOD 1, and LCM-8 MOD 2 (Watercraft Operations Support). Towing and Terminal Operations consist of Large Tug 800 (LT-800), Small Tug 900 (ST-900), and Barge Derrick Crane 115-ton (BD-115). Ship-to-Shore Enablers consist of Modular Causeway Systems (MCS) [each MCS includes Roll-On/Roll-Off Discharge Facilities (RRDF), Modular Warping Tugs (MWT), Causeway Ferry (CF), Floating Causeway (FC)].

The Construction Equipment (CE) Modification of In-Service Equipment program funds system modifications and modernization initiatives across the CE portfolio, to include the High Mobility Engineer Excavator (HMEE); Engineer Rapid Airfield Construction Capability (ERACC) for Dozers, Graders, Scrapers; Family of Loaders (FOL); Skid Steer Loader (SSL); Tractor Full Tracked; Grader; Scrapers and DEUCE; and Hydraulic Excavators (HYEX). These programs serve as critical enablers in support of the National Defense Strategy and to the operational force by providing the capabilities necessary (1) general construction tasks; (2) to construct, maintain and repair airfields, runways, main supply routes, logistical facilities, roads, helipads, and ports of entry/debarkation; (3) to repair and keep open Line of Communications resulting

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 90: Other Support Equipment		P-1 Line Item Number / Title: 1110MA4500 / Modification Of In-Svc Equipment (OPA-3)
ID Code (A=Service Ready, B=Not Service Ready):	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
Line Item MDAP/MAIS Code: N/A		
<p>in increased force mobility, maneuverability, deployability, sustainability; and (4) to enhance force infrastructure protection across a range of military operations. Improvements made to these systems will decrease rising sustainment costs and bridge the gap until new system procurement in future years.</p> <p>The Material Handling Equipment (MHE) Modification of In-Service Equipment program funds system modifications and modernization initiatives across the MHE portfolio, to include the Rough Terrain Container Handler (RTCH); All-Terrain Lifter, Army System (ATLAS); and Light Capability Rough Terrain Forklift (LCRTF). These improvements will decrease rising sustainment costs and bridge the gap until new system procurement in future years. These programs serve as critical enablers in support of the National Defense Strategy and to the operational force by providing the capabilities necessary to (1) clear landing zones of supplies and equipment, load and unload combat vehicles and aircraft as well as moving some artillery assets, ammunition and supplies and (2) perform port opening operations, logistics movement, and unloading and loading of containers that handle break-bulk cargo at seaports, railheads, and airports. The LCRTF is the only rugged forklift in the U.S. Army's inventory which can rapidly enter, pack, and unpack ISO containers, load and unload tactical vehicles and trailers, and lift and move light equipment and cargo. The RTCH represents a key enabler during Joint Logistics Over the Shore Operations (JLOTS) and lifts, moves, and stacks 20- and 40-foot ISO freight containers. In addition, program funds support the procurement and fielding of RTCH Special Tools Kits required to meet Field Level Maintenance requirements per the current Technical Manual for the aging legacy fleet.</p> <p>Modification kits provide proven capabilities to reduce logistical, resource and operational energy burdens in forward deployed Force Provider base camps resulting in a significant impact on Soldier safety by reducing dangerous and risky resupply missions that result in casualties. In addition to saving lives, this is a fiscally responsible investment as these capabilities have a quick return on investment in sustained operations. For example: Energy Efficiency modifications to shelters reduce solar loading by 85% and cooling and heating demands in turn reducing the fuel demand by 35% to power environmental control-ROI is within 180 days; the Power distribution Micro-grid component provides auto on/off capabilities for generators based upon load demand, reducing fuel consumed by over 30%-ROI is with 150 days; and the solid waste disposal piece will provide a safe and efficient capability to dispose of waste generated in the base camp.</p> <p>The Expeditionary Solid Waste Disposal System (ESWDS) will reduce the use of burn pits by providing a cleaner solution for onsite disposal of 1,000 lbs. of solid waste per day. The ESWDS will also reduce Soldier, civilian, and local population exposure to pollutants from open air burn pits; reduce the amount of trash that must be backhauled, reducing Soldiers' exposure and attacks during convoy operations; reduce the waste held onsite also deters potential vermin that could spread disease and disrupt mission and eliminate the security risk from uncontrolled access to trash.</p> <p>The Food Sanitation Center (FSC) will correct safety and operational shortfalls identified by the user and combat developer by retrofitting older FSCs with improvements from the current version. The modification kit includes automatic thermostatic water temperature control and a transfer pump. These modifications will improve operator safety, and overall sanitation effectiveness while reducing water consumption and environmental impact.</p> <p>The Explosive Ordnance Disposal (EOD) Modification of In-Service Equipment will be used to modify tool kits approved for EOD use. The EOD Response Tool Kit (RTK) has not been modified or upgraded for more than 25 years. The kits contain special tools and equipment that EOD units use to render safe explosive ordnance. The modification will include adding the capability to provide decontamination for teams, as well as individuals, during suspected or confirmed exposure to chemical elements, adding the capability to locate and render safe Improvised Explosive Devices (IEDs), and modifying the kit packaging into smaller, mission unique kits to provide EOD technicians the ability to perform dismantled operations. The tool kits will be fielded throughout the active Army and National Guard units. The Army Acquisition Objective (AAO) for the EOD Response Tool Kit modification is 587.</p> <p>The EOD Modification of In-Service Equipment will also be used to modify the EOD Platoon Supplemental Kit (PSK), which has not been modified or upgraded for more than 25 years. The PSK augments the EOD Response Tool Kit (RTK) to enable the EOD Heavy Team to perform missions beyond the capability of the RTK, such as EOD munitions with chemical or biological fill. The expanded capabilities include special expendable charge containers that can be packed with C4 or detonation cord for vehicle entry and disruption of improvised explosive devices, up-to-date borescope, and large image capture. The Army Acquisition Objective (AAO) for the EOD Platoon Supplemental Kit modification is 220.</p> <p>In addition, the Explosive Ordnance Disposal (EOD) Modification of In-Service Equipment will be used to procure the Dismounted Reconnaissance Sets, Kits and Outfits (DR SKO). The CBRN DR SKO provides CBRN Warfighters with a comprehensive suite of protection, detection, identification, sample collection, hazard marking, decontamination, and other support capabilities for use during explosive ordnance render safe operations. The Warfighter will use the CBRN DRS respiratory and percutaneous protection to prevent potential contamination while conducting operations, sensor capabilities to find CBRN and toxic industrial hazards to determine the appropriate action during operations, and the decontamination kit to remove contamination from personnel and equipment.</p>		

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 90: Other Support Equipment		P-1 Line Item Number / Title: 1110MA4500 / Modification Of In-Svc Equipment (OPA-3)
ID Code (A=Service Ready, B=Not Service Ready):	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A

Line Item MDAP/MAIS Code: N/A

The AN/PSS-14C is an enabler for Soldier Lethality as it guarantees Soldier maneuverability by enhancing the probability and speed of detection of buried landmines and IEDs allowing for increased speed of dismounted operations making the unit more efficient and lethal. The modifications will include retrofitting fielded systems with previously purchased upgrade kits that include new electronic boards, hand controller hardware, and updated software. These upgrades will require training/fielding of the system to address changes in the system operation from current software/hardware configuration.

The M41A1 Protection Assessment Test System (PATS) is a military version of a commercial device - TSI's "Model 8020M PortaCount Respirator Fit Tester" with accessories and carrying case comprise a system designed to check the readiness of protective masks. The M41A1 PATS instrument is one man portable, approximately 200 cubic inches in size, weighs 4 pounds, and is based on a miniature Condensation Nucleus Counter that continuously samples and counts individual particles naturally occurring in the surrounding air. The M41A1 PATS measures the concentration of these particles inside and outside the mask and calculates a Fit Factor (FF). The PATS is designed to verify that a protective mask, while worn by a Soldier, is capable of providing a minimum Army requirement FF of 1667. The PATS verifies: (1) the fit of the mask to the soldiers' face is acceptable, and (2) there are no critical leaks in the mask system. In addition to these features, the PATS can also be used to help screen for unserviceable masks, assist in determining if Preventive Maintenance Checks and Services (PMCS) have been conducted properly on critical components, and assist in training personnel on the proper wearing of the mask. A modernized PATS is needed as the legacy system is no longer manufacturable due to technological obsolescence of critical calibration components. The modernized M41A1 PATS will have modern technologies and updated components, such as circuit boards, rendering them producible, manufacturable and can be maintained into FY2035.

The M139 Volcano Mine Dispensing System is a mine delivery system. Volcano was originally fielded for use on tactical vehicles from the 1980s along with the UH-60M Blackhawk aircraft. The prime movers for the system have been replaced and currently lack required safety certifications for safe usage. The in-service modification will complete initial engineering activities and complete system life extension modifications for worldwide ground and air use. Configuration and interface issues with the Class VII components of the Mine Clearing Line Charge (MICLIC) system (MK155 Mod 3 Launcher and M200 trailer) will also be addressed. The MICLIC system is used to breach vehicle-wide paths through minefields and to counter Improvised Explosive Device (IED) arrays. Funding will support rectifying interface issues between the launcher and new production M200 trailers, and other initial engineering activities in preparation for life extension modifications.

The Dry Support Bridge (DSB) is the Multi-Role Bridging Company's mobile tactical bridging platform. The DSB is employed in tactical and assault contingency situations when a longer bridging span is required to maintain forward momentum of joint maneuver forces. The 40 meter DSB can span a 40 meter gap or two 20 meter gaps. The 46 meter bridge can span a 46 meter gap or two 28 meter gaps (with 46 meter retrofit upgrade). Both have a crossing weight capability of Military Load Class (MLC) 96 normal/120 under caution (Wheeled) and MLC 80 (Tracked). The DSB has a road width of 4.3 meters and an emplacement time of 90 minutes or less, with little or no site preparation.

The Rapidly Emplaced Bridge System (REBS) is a self-deployable/retrievable bridge that provides the SBCT and IBCT with an organic tactical gap crossing capability. The REBS can be employed by two Soldiers in less than ten minutes and is air transportable by C-130. The system is transported across the battlefield by a Heavy Tactical Common Bridge Transporter (CBT) and is comprised of two bridge halves and a pallet that is utilized to launch and retrieve the bridge. REBS is capable of crossing a 13 meter gap with an MLC of 40 normal and 50 caution.

Comments: In accordance with Section 1815 of the FY 2008 National Defense Authorization Act (P.L. 110-181), this item is necessary for use by the active and reserve components of the Armed Forces for homeland defense missions, domestic emergency responses, and providing military support to civil authorities.

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
Army	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	53.586	103.386	26.545	-	26.545	26.533	31.370	11.969	15.482
ANG	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	4.845	2.221	2.376	-	2.376	-	-	6.749	-
AR	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	7.064	1.205	3.564	-	3.564	-	-	-	-
Total:	Quantity	-	-	-	-	-	-	-	-	-

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 90: Other Support Equipment	P-1 Line Item Number / Title: 1110MA4500 / Modification Of In-Svc Equipment (OPA-3)
-----------------------------------------------------------------------------------------------------------------------------------------------------------------------	-----------------------------------------------------------------------------------------------

ID Code (A=Service Ready, B=Not Service Ready):	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
--------------------------------------------------------	-----------------------------------------------	--------------------------------------------

Line Item MDAP/MAIS Code: N/A

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
Secondary Distribution	Total Obligation Authority	65.495	106.812	32.485	-	32.485	26.533	31.370	18.718	15.482

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity:
2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 90: Other Support Equipment

P-1 Line Item Number / Title:
1110MA4500 / Modification Of In-Svc Equipment (OPA-3)

ID Code (A=Service Ready, B=Not Service Ready): **Program Elements for Code B Items:** N/A **Other Related Program Elements:** N/A

Line Item MDAP/MAIS Code: N/A

Exhibits Schedule					Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-3a	MA4501 / MODIFICATION KITS (-)				- / 928.742	- / 15.693	- / 48.821	- / 19.386	- / -	- / 19.386
P-3a	MA4502 / INSTALLATION OF MODIFICATIONS (-)				- / 261.056	- / 12.306	- / 18.438	- / 5.251	- / -	- / 5.251
P-3a	MA4504 / TACTICAL BRIDGING MODIFICATIONS (Equipment Upgrade)				- / 64.684	- / 2.918	- / 10.433	- / 7.848	- / -	- / 7.848
P-40a	R01121 / EOD MODIFICATION OF IN-SVC EQUIPMENT (Equipment Upgrade)				158 / 9.761	6,326 / 34.578	313 / 29.120	- / -	- / -	- / -
P-40	Total Gross/Weapon System Cost				- / 1,264.243	- / 65.495	- / 106.812	- / 32.485	- / -	- / 32.485

Exhibits Schedule					FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-3a	MA4501 / MODIFICATION KITS (-)				- / 19.819	- / 21.331	- / 7.385	- / 10.849	Continuing	Continuing
P-3a	MA4502 / INSTALLATION OF MODIFICATIONS (-)				- / 4.506	- / 4.718	- / 4.584	- / 4.633	Continuing	Continuing
P-3a	MA4504 / TACTICAL BRIDGING MODIFICATIONS (Equipment Upgrade)				- / 2.208	- / 5.321	- / 6.749	- / -	Continuing	Continuing
P-40a	R01121 / EOD MODIFICATION OF IN-SVC EQUIPMENT (Equipment Upgrade)				- / -	- / -	- / -	- / -	- / -	6,797 / 73.459
P-40	Total Gross/Weapon System Cost				- / 26.533	- / 31.370	- / 18.718	- / 15.482	Continuing	Continuing

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

Justification:
FY 2021 Base procurement dollars in the amount of \$32.485 million supports the following efforts:

MA4501:
Modification Items #1 Material Handling Equipment (MHE) Technical Insertion (PEO CS & CSS) - FY 2021 Base procurement dollars for Material Handling Equipment (MHE) in the amount of \$3.246 million provides RTCH Special Tools, upgrade modifications to the ATLAS, RTCH and other MHE systems, and Program Support costs. In addition to the base description above, the Material Handling Equipment (MHE) Modification of In-Service Equipment program funds system modifications and modernization initiatives across the MHE portfolio, to include the Rough Terrain Container Handler (RTCH); All-Terrain Lifter, Army System (ATLAS); and Light Capability Rough Terrain Forklift (LCRTF). These improvements (e.g. new control units) will decrease rising sustainment costs and bridge the gap until new system procurement in future years.

Note: FY 2019 quantity of 3 is incorrect due to systematic error. The correct quantity of 5 in the P3a reflects true programmatic planning.

Modification Item #2 Construction Equipment (CE) Tech Insertion (PEO CS & CSS) - There is no FY 2021 funding for this modification item.

Note: FY 2019 quantity is incorrect due to systematic error. The correct quantity of 4 in the P3a reflects true programmatic planning. FY 2020 quantities increased from 3 to 13 to reflect current programmatic planning for a Congressional add.

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 90: Other Support Equipment		P-1 Line Item Number / Title: 1110MA4500 / Modification Of In-Svc Equipment (OPA-3)
ID Code (A=Service Ready, B=Not Service Ready):	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
Line Item MDAP/MAIS Code: N/A		
<p>Modification Item #3 Army Watercraft Systems (PEO CS & CSS) - FY 2021 Base procurement dollars in the amount of \$8.158 million supports pier side modifications of all outstanding and emerging Engineering Change Proposals (ECP) and Modification Work Orders (MWO) across the watercraft fleet. Application of ECPs/MWOs will regain fleet configuration control, improve operational readiness, correct safety and regulatory deficiencies, comply with changing federal statutory and regulatory mandates, comply with safety of life at sea (SOLAS) requirements and comply with all necessary environmental requirements. Funding also supports Program Management/Matrix Support, and upgrades/modifications to Army Watercraft Systems which are completed as required to resolve any survivability / force protection - lethal and non-lethal Escalation of Force (EoF) issues, and technical insertions. Program Management/Matrix Support includes Program Management and System Engineering, Logistics oversight required to manage the program and provide contractor oversight.</p> <p>Modification Item #4 M139 Volcano Mine Dispensing System (JPEO A&A) - FY 2021 Base procurement dollars in the amount of \$7.982 million supports the modification of 36 volcano systems. The M139 Volcano Mine Dispensing System is a mine delivery system. Volcano was originally fielded for use on tactical vehicles from the 1980s along with the UH-60M Blackhawk aircraft. The prime movers for the system have been replaced and currently lack required safety certifications for safe usage. The in-service modification will complete initial engineering activities and complete system life extension modifications for worldwide ground and air use.</p> <p>Modification Item #5 Mine Clearing Line Charge (MICLIC) (JPEO A&A) - There is no FY 2021 funding for this modification item.</p> <p>Modification Item #6 CBRN Soldier Protection M41A1 PATS (PEO Joint Program Office Biological Defense) - There is no FY 2021 funding for this modification item.</p> <p>Modification Item #7 Force Provider (PEO CS & CSS) - There is no FY 2021 funding for this modification item.</p> <p>Modification Item #8 Food Sanitation Center (PEO CS & CSS) - There is no FY 2021 funding for this modification item.</p> <p>MA4502: Modification Item #1 Petroleum and Water Systems (PEO CS & CSS) - There is no FY 2021 funding for this modification item.</p> <p>Modification Item #2 Army Watercraft Systems (PEO CS & CSS) - FY 2021 Base procurement dollars in the amount of \$3.397 million supports completion of pier side modifications of all outstanding and emerging Engineering Change Proposals (ECP) and Modification Work Orders (MWO) across the watercraft fleet. Application of ECPs/MWOs will regain fleet configuration control, improve operational readiness, correct safety and regulatory deficiencies, comply with changing federal statutory and regulatory mandates, comply with safety of life at sea (SOLAS) requirements and comply with all necessary environmental requirements. Funding also supports Program Management/Matrix Support, and upgrades/modifications to Army Watercraft Systems which are completed as required to resolve any survivability / force protection - lethal and non-lethal Escalation of Force (EoF) issues, and technical insertions. Program Management/Matrix Support includes Program Management and System Engineering, Logistics oversight required to manage the program and provide contractor oversight.</p> <p>Modification Items #3 AN/PSS-14C (JPEO A&A) - FY 2021 Base procurement dollars in the amount of \$1.856 million supports activities associated with the upgrade of AN/PSS-14C systems using previously purchased upgrade kits. The AN/PSS-14C is an enabler for Soldier Lethality as it guarantees Soldier maneuverability by enhancing the probability and speed of detection of buried landmines and IEDs allowing for increased speed of dismounted operations making the unit more efficient and lethal. The modifications will include retrofitting fielded systems with previously purchased upgrade kits that include new electronic boards, hand controller hardware, and updated software. These upgrades will require training/fielding of the system to address changes in the system operation from current software/hardware configuration.</p> <p>MA4504: Modification Item #1: Bridging (PEO CS & CSS) - FY 2021 Base procurement dollars in the amount of \$5.783 million supports the Dry Support Bridge (DSB) 46 meter retrofit upgrade kits enabling the fielded 40 meter DSB Systems the capability to bridge gaps up to 46 meters, increasing its gap crossing capability by 15%.</p> <p>Modification Item #2: Bridging (PEO CS & CSS) - This modification item is not funded in FY2021.</p>		

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 90: Other Support Equipment		P-1 Line Item Number / Title: 1110MA4500 / Modification Of In-Svc Equipment (OPA-3)
ID Code (A=Service Ready, B=Not Service Ready):	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
Line Item MDAP/MAIS Code: N/A		
<p>Modification Item #3: Bridging (PEO CS & CSS) - FY 2021 Base procurement dollars in the amount of \$1.665 million supports the Rapidly Emplaced Bridge System (REBS) V3 Kits for REBS modifications and modernization through installation of a heating device for the winch, decentralization of the hydraulic valves to shorten the distance between valves and cylinders, and installation of a hydraulic power pack to use the CBT as the main power source. This modification increases the reliability and durability of the REBS launcher.</p> <p>Modification Items #4 and #5: Bridging (PEO CS & CSS) - These modification items are not funded in FY2021.</p> <p>Modification Item #6: Bridging (PEO CS & CSS) - FY 2021 Base procurement dollars in the amount of \$0.400 million supports Interim Contractor Logistics Support (ICLS) under Urgent Materiel Release (UMR) for the Rapidly Emplaced Bridge System (REBS) V3 until Full Materiel Release (FMR) is achieved in June 2021.</p> <p>R01121: Modification Item #1 and #3 Explosive Ordnance Disposal (EOD) Equipment (JPEO A&A) - There is no FY21 funding for this modification item.</p> <p>Modification Item #2 DR SKO (Joint Program Office Biological Defense) - There is no FY21 funding for this modification item.</p> <p>In accordance with Section 1815 of the FY 2008 National Defense Authorization Act (P.L. 110-181), this item is necessary for use by the active and reserve components of the Armed Forces for homeland defense missions, domestic emergency responses, and providing military support to civil authorities.</p>		

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 90	P-1 Line Item Number / Title: 1110MA4500 / Modification Of In-Svc Equipment (OPA-3)	Modification Number / Title: MA4501 / MODIFICATION KITS

ID Code (A=Service Ready, B=Not Service Ready) :		MDAP/MAIS Code:										
Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	928.742	15.693	48.821	19.386	-	19.386	19.819	21.331	7.385	10.849	Continuing	Continuing
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	928.742	15.693	48.821	19.386	-	19.386	19.819	21.331	7.385	10.849	Continuing	Continuing
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	928.742	15.693	48.821	19.386	-	19.386	19.819	21.331	7.385	10.849	Continuing	Continuing
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>												
Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Thousands</i>)	374.946	30.953	23.472	359.000	-	359.000	287.232	309.145	160.543	152.803	Continuing	Continuing

Description:

This budget line funds Modifications of In-Service Equipment programs. It is used to develop material solutions and also to procure hardware and materials required to complete the modification. Modifications are performed to correct safety deficiencies; increase mission capabilities and interoperability; extend the useful life; improve supportability; upgrade existing technology; increase efficiency; improve readiness; modernization of legacy communications equipment and links; address obsolescence issues; and to meet new and/or changing statutory and regulatory requirements. By modifying existing equipment, the Army maintains a ready, supportable inventory of equipment that meets current requirements and regulations at a cost considerably below that of buying new equipment.

Modification Items #1 Material Handling Equipment (MHE) Technical Insertion (PEO CS & CSS) - FY 2021 Base procurement dollars for Material Handling Equipment (MHE) in the amount of \$3.250 million provides RTCH Special Tools, upgrade modifications to the ATLAS, RTCH and other MHE systems, and Program Support costs. In addition to the base description above, the Material Handling Equipment (MHE) Modification of In-Service Equipment program funds system modifications and modernization initiatives across the MHE portfolio, to include the Rough Terrain Container Handler (RTCH); All-Terrain Lifter, Army System (ATLAS); and Light Capability Rough Terrain Forklift (LCRTF). These improvements (e.g. new control units) will decrease rising sustainment costs and bridge the gap until new system procurement in future years.

Modification Item #2 Construction Equipment (CE) Tech Insertion (PEO CS & CSS) - There is no FY 2021 funding for this modification item.

Modification Item #3 Army Watercraft Systems (PEO CS & CSS) - FY 2021 Base procurement dollars in the amount of \$8.158 million supports pier side modifications of all outstanding and emerging Engineering Change Proposals (ECP) and Modification Work Orders (MWO) across the watercraft fleet. Application of ECPs/MWOs will regain fleet configuration control, improve operational readiness, correct safety and regulatory deficiencies, comply with changing federal statutory and regulatory mandates, comply with safety of life at sea (SOLAS) requirements and comply with all necessary environmental requirements. Funding also supports Program Management/Matrix Support, and upgrades/modifications to Army Watercraft Systems which are completed as required to resolve any survivability / force protection - lethal and non-lethal Escalation of Force (EoF) issues, and technical insertions. Program Management/Matrix Support includes Program Management and System Engineering, Logistics oversight required to manage the program and provide contractor oversight.

Modification Item #4 M139 Volcano Mine Dispensing System (JPEO A&A) - FY 2021 Base procurement dollars in the amount of \$7.982 million supports modification of 36 volcano systems. The M139 Volcano Mine Dispensing System is a mine delivery system. Volcano was originally fielded for use on tactical vehicles from the 1980s along with the UH-60M Blackhawk aircraft. The prime movers for the system have been replaced and currently lack required safety certifications for safe usage. The in-service modification will complete initial engineering activities and complete system life extension modifications for worldwide ground and air use.

Modification Item #5 Mine Clearing Line Charge (MICLIC) (JPEO A&A) - There is no FY 2021 funding request for this modification item.

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 90	P-1 Line Item Number / Title: 1110MA4500 / Modification Of In-Svc Equipment (OPA-3)	Modification Number / Title: MA4501 / MODIFICATION KITS
----------------------------------------------------------------------------------	-----------------------------------------------------------------------------------------------	-------------------------------------------------------------------

ID Code (A=Service Ready, B=Not Service Ready) : **MDAP/MAIS Code:**

Modification Item #6 CBRN Soldier Protection M41A1 PATS (PEO Joint Program Office Biological Defense) - There is no FY 2021 funding for this modification item.

Modification Item #7 Force Provider (PEO CS & CSS) - There is no FY 2021 funding for this modification item.

Modification Item #8 Food Sanitation Center (PEO CS & CSS) - There is no FY 2021 funding for this modification item.

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
Army	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	13.192	45.395	19.386	-	19.386	19.819	21.331	7.385	10.849
ANG	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	1.509	2.221	-	-	-	-	-	-	-
AR	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	0.992	1.205	-	-	-	-	-	-	-
Total: Secondary Distribution	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	15.693	48.821	19.386	-	19.386	19.819	21.331	7.385	10.849

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2021 Army										Date: February 2020			
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 90					P-1 Line Item Number / Title: 1110MA4500 / Modification Of In-Svc Equipment (OPA-3)					Modification Number / Title: MA4501 / MODIFICATION KITS			
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:						
Models of Systems Affected: -				Modification Type: -				Related RDT&E PEs:					
Financial Plan	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total	
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	
Procurement													
Modification Item 1 of 9: Material Handling Equipment Technical Insertion													
A Kits													
Recurring													
Other (RTCH Special Tools, Program Spt)	- / 0.658	5 / 0.074	3 / 0.243	54 / 3.246	- / -	54 / 3.246	54 / 3.258	54 / 3.262	33 / 2.186	56 / 3.347	- / -	259 / 16.274	
Other (RTCH Program, Modernization)	- / -	- / -	13 / 10.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	13 / 10.000	
Subtotal: Recurring	- / 0.658	5 / 0.074	16 / 10.243	54 / 3.246	- / -	54 / 3.246	54 / 3.258	54 / 3.262	33 / 2.186	56 / 3.347	- / -	272 / 26.274	
Subtotal: Material Handling Equipment Technical Insertion	- / 0.658	5 / 0.074	16 / 10.243	54 / 3.246	- / -	54 / 3.246	54 / 3.258	54 / 3.262	33 / 2.186	56 / 3.347	- / -	272 / 26.274	
Modification Item 2 of 9: Construction Equipment Technical Insertion													
A Kits													
Recurring													
Other	- / 34.143	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 34.143	
Subtotal: Recurring	- / 34.143	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 34.143	
B Kits													
Recurring													
Scraper Armor Kits	- / -	4 / 0.953	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	4 / 0.953	
Blade Leveling A Kits	95 / 8.274	- / 0.540	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	95 / 8.814	
Other	- / 17.160	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 17.160	
Subtotal: Recurring	95 / 15.434	4 / 1.493	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	99 / 16.927	
Subtotal: Construction Equipment Technical Insertion	95 / 49.577	4 / 1.493	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	99 / 51.070	
Modification Item 3 of 9: Army Watercraft Systems													
A Kits													
Recurring													
AWS Modifications	- / -	- / -	- / 13.238	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 13.238	
Safety/Environmental MWO's/PQDR's/ECP's	- / 15.010	- / 1.211	- / 3.781	- / 4.055	- / -	- / 4.055	- / 3.449	- / 4.901	- / 2.701	- / 3.391	- / -	- / 38.499	
C4ISR	- / 23.700	- / 1.256	- / 1.890	- / 1.993	- / -	- / 1.993	- / 1.388	- / 2.102	- / 1.101	- / 2.201	- / -	- / 35.631	
Matrix Support	- / 11.075	- / 1.218	- / 1.800	- / 1.296	- / -	- / 1.296	- / 1.603	- / 1.781	- / 1.004	- / 1.502	- / -	- / 21.279	
Program Management	- / 4.514	- / 0.636	- / 0.839	- / 0.814	- / -	- / 0.814	- / 0.601	- / 0.413	- / 0.393	- / 0.408	- / -	- / 8.618	
Training Equipment	- / 608.689	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 608.689	
Subtotal: Recurring	- / 662.988	- / 4.321	- / 21.548	- / 8.158	- / -	- / 8.158	- / 7.041	- / 9.197	- / 5.199	- / 7.502	- / -	- / 725.954	

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2021 Army										Date: February 2020		
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 90				P-1 Line Item Number / Title: 1110MA4500 / Modification Of In-Svc Equipment (OPA-3)						Modification Number / Title: MA4501 / MODIFICATION KITS		
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:					
Models of Systems Affected: -				Modification Type: -				Related RDT&E PEs:				
Financial Plan	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>
<i>Subtotal: Army Watercraft Systems</i>	- / 662.988	- / 4.321	- / 21.548	- / 8.158	- / -	- / 8.158	- / 7.041	- / 9.197	- / 5.199	- / 7.502	- / -	- / 725.954
Modification Item 4 of 9: M139 Volcano Mine Dispersing System												
A Kits												
Recurring												
M139 Volcano Mine Dispersing System	- / -	33 / 4.023	24 / 6.450	36 / 7.982	- / -	36 / 7.982	40 / 9.520	37 / 8.872	- / -	- / -	- / -	170 / 36.847
<i>Subtotal: Recurring</i>	- / -	33 / 4.023	24 / 6.450	36 / 7.982	- / -	36 / 7.982	40 / 9.520	37 / 8.872	- / -	- / -	- / -	170 / 36.847
<i>Subtotal: M139 Volcano Mine Dispersing System</i>	- / -	33 / 4.023	24 / 6.450	36 / 7.982	- / -	36 / 7.982	40 / 9.520	37 / 8.872	- / -	- / -	- / -	170 / 36.847
Modification Item 5 of 9: Mine Clearing Line Charge (MICLIC)												
A Kits												
Non-Recurring												
MICLIC (Mine Clearing Charge)	- / -	- / 0.500	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.500
<i>Subtotal: Non-Recurring</i>	- / -	- / 0.500	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.500
<i>Subtotal: Mine Clearing Line Charge (MICLIC)</i>	- / -	- / 0.500	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.500
Modification Item 6 of 9: CBRN Soldier Protection M41A1 PATS												
A Kits												
Recurring												
M41 8020M Systems	847 / 7.548	489 / 5.005	932 / 10.436	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	2,268 / 22.989
Tech Data	- / 0.467	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.467
Program Management	- / 0.583	- / 0.277	- / 0.144	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 1.004
<i>Subtotal: Recurring</i>	847 / 8.598	489 / 5.282	932 / 10.580	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	2,268 / 24.460
<i>Subtotal: CBRN Soldier Protection M41A1 PATS</i>	847 / 8.598	489 / 5.282	932 / 10.580	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	2,268 / 24.460
Modification Item 7 of 9: Force Provider												
A Kits												
Recurring												
Other	- / 188.161	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 188.161
<i>Subtotal: Recurring</i>	- / 188.161	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 188.161
<i>Subtotal: Force Provider</i>	- / 188.161	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 188.161
Modification Item 8 of 9: Food Sanitation Center												
A Kits												

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2021 Army										Date: February 2020		
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 90				P-1 Line Item Number / Title: 1110MA4500 / Modification Of In-Svc Equipment (OPA-3)						Modification Number / Title: MA4501 / MODIFICATION KITS		
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:					
Models of Systems Affected: -			Modification Type: -				Related RDT&E PEs:					
Financial Plan	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Recurring												
Other	- / 15.069	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 15.069
<i>Subtotal: Recurring</i>	- / 15.069	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 15.069
<i>Subtotal: Food Sanitation Center</i>	- / 15.069	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 15.069
Modification Item 9 of 9: Adjustment												
A Kits												
Recurring												
Adjustment	- / 0.579	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.579
<i>Subtotal: Recurring</i>	- / 0.579	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.579
<i>Subtotal: Adjustment</i>	- / 0.579	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.579
<i>Subtotal: Procurement, All Modification Items</i>	942 / 925.630	531 / 15.693	972 / 48.821	90 / 19.386	- / -	90 / 19.386	94 / 19.819	91 / 21.331	33 / 7.385	56 / 10.849	- / -	2,809 / 1,068.914
Installation												
Modification Item 6 of 9: CBRN Soldier Protection M41A1 PATS	847 / -	489 / -	554 / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1,890 / -
Modification Item 7 of 9: Force Provider	- / 1.880	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	Continuing	Continuing
Modification Item 8 of 9: Food Sanitation Center	- / 1.232	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	Continuing	Continuing
<i>Subtotal: Installation</i>	847 / 3.112	489 / -	554 / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	Continuing	Continuing
Total												
Total Cost (Procurement + Support + Installation)	928.742	15.693	48.821	19.386	-	19.386	19.819	21.331	7.385	10.849	Continuing	Continuing

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 90	P-1 Line Item Number / Title: 1110MA4500 / Modification Of In-Svc Equipment (OPA-3)	Modification Number / Title: MA4501 / MODIFICATION KITS
----------------------------------------------------------------------------------	-----------------------------------------------------------------------------------------------	-------------------------------------------------------------------

ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:
---------------------------------------------------------	------------------------

Modification Item 1 of 9: Material Handling Equipment Technical Insertion

Manufacturer Information

Manufacturer Name: Various	Manufacturer Location: Various
----------------------------	--------------------------------

Administrative Leadtime (in Months):	Production Leadtime (in Months):
--------------------------------------	----------------------------------

Dates	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
Contract Dates							
Delivery Dates							

Installation Information

Method of Implementation: Various

Installation Cost	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2024	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2025	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -

Installation Schedule

	PYS	FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				FY 2025				TC	Tot	
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4			
In	112	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	112
Out	112	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	112

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2021 Army						Date: February 2020	
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 90			P-1 Line Item Number / Title: 1110MA4500 / Modification Of In-Svc Equipment (OPA-3)			Modification Number / Title: MA4501 / MODIFICATION KITS	
ID Code (A=Service Ready, B=Not Service Ready) :					MDAP/MAIS Code:		
Modification Item 2 of 9: Construction Equipment Technical Insertion							
Manufacturer Information							
Manufacturer Name: Various				Manufacturer Location: Various			
Administrative Leadtime (in Months): 4				Production Leadtime (in Months): 2			
Dates	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
Contract Dates	Dec 2018						
Delivery Dates	Mar 2019						
Installation Information							
Method of Implementation (Organic): Various					Installation Quantity: 0		

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 90	P-1 Line Item Number / Title: 1110MA4500 / Modification Of In-Svc Equipment (OPA-3)	Modification Number / Title: MA4501 / MODIFICATION KITS
----------------------------------------------------------------------------------	-----------------------------------------------------------------------------------------------	-------------------------------------------------------------------

ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:
---------------------------------------------------------	------------------------

Modification Item 3 of 9: Army Watercraft Systems

Manufacturer Information

Manufacturer Name: Various	Manufacturer Location: Various
----------------------------	--------------------------------

Administrative Leadtime (in Months):	Production Leadtime (in Months):
--------------------------------------	----------------------------------

Dates	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
Contract Dates							
Delivery Dates							

Installation Information

Method of Implementation: -

Installation Cost	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2024	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2025	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -

Installation Schedule

PYS	FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				FY 2025				TC	Tot
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1
Out	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 90	P-1 Line Item Number / Title: 1110MA4500 / Modification Of In-Svc Equipment (OPA-3)	Modification Number / Title: MA4501 / MODIFICATION KITS
----------------------------------------------------------------------------------	-----------------------------------------------------------------------------------------------	-------------------------------------------------------------------

ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:
---------------------------------------------------------	------------------------

Modification Item 4 of 9: M139 Volcano Mine Dispersing System

Manufacturer Information

Manufacturer Name: To Be Selected	Manufacturer Location: To Be Selected
-----------------------------------	---------------------------------------

Administrative Leadtime (in Months):	Production Leadtime (in Months):
--------------------------------------	----------------------------------

Dates	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
Contract Dates							
Delivery Dates							

Installation Information

Method of Implementation: To Be Selected

Installation Cost	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2024	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2025	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -

Installation Schedule

PYS	FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				FY 2025				TC	Tot
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1
Out	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 90	P-1 Line Item Number / Title: 1110MA4500 / Modification Of In-Svc Equipment (OPA-3)	Modification Number / Title: MA4501 / MODIFICATION KITS
----------------------------------------------------------------------------------	-----------------------------------------------------------------------------------------------	-------------------------------------------------------------------

ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:
---------------------------------------------------------	------------------------

Modification Item 5 of 9: Mine Clearing Line Charge (MICLIC)

Manufacturer Information

Manufacturer Name: To Be Selected	Manufacturer Location: To Be Selected
-----------------------------------	---------------------------------------

Administrative Leadtime (in Months):	Production Leadtime (in Months):
--------------------------------------	----------------------------------

Dates	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
Contract Dates							
Delivery Dates							

Installation Information

Method of Implementation: To Be Selected

Installation Cost	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2024	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2025	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -

Installation Schedule

PYS	FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				FY 2025				TC	Tot
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1
Out	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 90	P-1 Line Item Number / Title: 1110MA4500 / Modification Of In-Svc Equipment (OPA-3)	Modification Number / Title: MA4501 / MODIFICATION KITS
----------------------------------------------------------------------------------	-----------------------------------------------------------------------------------------------	-------------------------------------------------------------------

ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:
---------------------------------------------------------	------------------------

Modification Item 6 of 9: CBRN Soldier Protection M41A1 PATS

Manufacturer Information

Manufacturer Name: Manufacturer Name: TSI, Inc.	Manufacturer Location: Shoreview, MN
Administrative Leadtime (in Months): 2	Production Leadtime (in Months): 7

Dates	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
Contract Dates	Nov 2018	Dec 2019					
Delivery Dates	Sep 2019	Jul 2020					

Installation Information

Method of Implementation: Contract

Installation Cost	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	420 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	420 / 0.000
FY 2019	427 / 0.000	489 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	916 / 0.000
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	554 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	554 / 0.000
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2024	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2025	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	847 / 0.000	489 / 0.000	554 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1,890 / 0.000

Installation Schedule

	PYS	FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				FY 2025				TC	Tot	
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4			
In	847	480	-	9	-	282	-	272	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,890
Out	847	-	-	-	489	-	-	282	272	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,890

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 90	P-1 Line Item Number / Title: 1110MA4500 / Modification Of In-Svc Equipment (OPA-3)	Modification Number / Title: MA4501 / MODIFICATION KITS
----------------------------------------------------------------------------------	-----------------------------------------------------------------------------------------------	-------------------------------------------------------------------

ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:
---------------------------------------------------------	------------------------

Modification Item 7 of 9: Force Provider

Manufacturer Information

Manufacturer Name: TBD	Manufacturer Location: TBD
------------------------	----------------------------

Administrative Leadtime (in Months): 2	Production Leadtime (in Months):
----------------------------------------	----------------------------------

Dates	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
Contract Dates		Sep 2020					
Delivery Dates		Sep 2021					

Installation Information

Method of Implementation: New Contract

Installation Cost	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	0 / 1.880	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	Continuing	Continuing
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2024	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2025	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	0 / 1.880	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	Continuing	Continuing

Installation Schedule

PYS	PYS	FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				FY 2025				TC	Tot	
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4			
In	692	-	-	-	-	-	-	-	17	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	709
Out	680	4	4	4	-	-	-	-	-	-	-	-	17	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	709

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 90	P-1 Line Item Number / Title: 1110MA4500 / Modification Of In-Svc Equipment (OPA-3)	Modification Number / Title: MA4501 / MODIFICATION KITS
----------------------------------------------------------------------------------	-----------------------------------------------------------------------------------------------	-------------------------------------------------------------------

ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:
---------------------------------------------------------	------------------------

Modification Item 8 of 9: Food Sanitation Center

Manufacturer Information

Manufacturer Name: Sotera Defesnse	Manufacturer Location: Easton, MD
------------------------------------	-----------------------------------

Administrative Leadtime (in Months): 1	Production Leadtime (in Months): 7
----------------------------------------	------------------------------------

Dates	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
Contract Dates							
Delivery Dates							

Installation Information

Method of Implementation: C/FP

Installation Cost	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	0 / 1.232	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	Continuing	Continuing
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2024	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2025	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	0 / 1.232	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	Continuing	Continuing

Installation Schedule

PYS	In	FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				FY 2025				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
	2,277	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2,277
	2,277	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2,277

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2021 Army					Date: February 2020		
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 90			P-1 Line Item Number / Title: 1110MA4500 / Modification Of In-Svc Equipment (OPA-3)			Modification Number / Title: MA4501 / MODIFICATION KITS	
ID Code (A=Service Ready, B=Not Service Ready) :					MDAP/MAIS Code:		
Modification Item 9 of 9: Adjustment							
Manufacturer Information							
Manufacturer Name: -				Manufacturer Location: -			
Administrative Leadtime (in Months):				Production Leadtime (in Months):			
Dates	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
Contract Dates							
Delivery Dates							
Installation Information							
Method of Implementation (Organic): -					Installation Quantity: 0		

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 90	P-1 Line Item Number / Title: 1110MA4500 / Modification Of In-Svc Equipment (OPA-3)	Modification Number / Title: MA4502 / INSTALLATION OF MODIFICATIONS

ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:
---------------------------------------------------------	------------------------

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	261.056	12.306	18.438	5.251	-	5.251	4.506	4.718	4.584	4.633	Continuing	Continuing
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	261.056	12.306	18.438	5.251	-	5.251	4.506	4.718	4.584	4.633	Continuing	Continuing
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	261.056	12.306	18.438	5.251	-	5.251	4.506	4.718	4.584	4.633	Continuing	Continuing

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Thousands</i>)	99.830	13.952	-	-	-	-	-	-	-	-	Continuing	Continuing

Description:

This budget line funds Modifications of In-Service Equipment programs. It is used to procure the hardware installation cost required to complete the modification. Modifications are performed to correct safety deficiencies; increase mission capabilities and interoperability; extend the useful life; improve supportability; upgrade existing technology; increase efficiency; improve readiness; modernization of legacy communications equipment and links; address obsolescence issues; and to meet new and/or changing statutory and regulatory requirements. By modifying existing equipment, the Army maintains a ready, supportable inventory of equipment that meets current requirements and regulations at a cost considerably below that of buying new equipment.

Modification Item #1 Petroleum and Water Systems (PEO CS & CSS) - There is no FY 2021 funding for this modification item.

Modification Item #2 Army Watercraft Systems (PEO CS & CSS) - FY 2021 Base procurement dollars in the amount of \$3.397 million supports completion of pier side modifications of all outstanding and emerging Engineering Change Proposals (ECP) and Modification Work Orders (MWO) across the watercraft fleet. Application of ECPs/MWOs will regain fleet configuration control, improve operational readiness, correct safety and regulatory deficiencies, comply with changing federal statutory and regulatory mandates, comply with safety of life at sea (SOLAS) requirements and comply with all necessary environmental requirements. Funding also supports Program Management/Matrix Support, and upgrades/modifications to Army Watercraft Systems which are completed as required to resolve any survivability / force protection - lethal and non-lethal Escalation of Force (EoF) issues, and technical insertions. Program Management/Matrix Support includes Program Management and System Engineering, Logistics oversight required to manage the program and provide contractor oversight.

Modification Items #3 AN/PSS-14C (JPEO A&A) - FY 2021 Base procurement dollars in the amount of \$1.856 million supports activities associated with the upgrade of AN/PSS-14C systems using previously purchased upgrade kits. The AN/PSS-14C is an enabler for Soldier Lethality as it guarantees soldier maneuverability by enhancing the probability and speed of detection of buried landmines and IEDs allowing for increased speed of dismounted operations making the unit more efficient and lethal. The modifications will include retrofitting fielded systems with previously purchased upgrade kits that include new electronic boards, hand controller hardware, and updated software. These upgrades will require training/fielding of the system to address changes in the system operation from current software/hardware configuration.

Modification Item #4 Force Provider (PEO CS & CSS) - There is no FY 2021 funding for this modification item.

Secondary Distribution	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
Army									
Quantity	-	-	-	-	-	-	-	-	-
Total Obligation Authority	2.898	18.438	5.251	-	5.251	4.506	4.718	4.584	4.633

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2021 Army							Date: February 2020			
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 90			P-1 Line Item Number / Title: 1110MA4500 / Modification Of In-Svc Equipment (OPA-3)				Modification Number / Title: MA4502 / INSTALLATION OF MODIFICATIONS			
ID Code (A=Service Ready, B=Not Service Ready) :					MDAP/MAIS Code:					
Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
ANG	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	3.336	-	-	-	-	-	-	-	-
AR	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	6.072	-	-	-	-	-	-	-	-
Total:	Quantity	-	-	-	-	-	-	-	-	-
Secondary Distribution	Total Obligation Authority	12.306	18.438	5.251	-	5.251	4.506	4.718	4.584	4.633

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2021 Army										Date: February 2020			
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 90				P-1 Line Item Number / Title: 1110MA4500 / Modification Of In-Svc Equipment (OPA-3)						Modification Number / Title: MA4502 / INSTALLATION OF MODIFICATIONS			
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:						
Models of Systems Affected: -				Modification Type: -				Related RDT&E PEs:					
Financial Plan	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total	
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	
Procurement													
Modification Item 1 of 5: Petroleum/Water Systems PEO-CS-CSS													
A Kits													
Recurring													
Other	- / 3.118	- / 0.102	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 3.220	
Subtotal: Recurring	- / 3.118	- / 0.102	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 3.220	
Subtotal: Petroleum/Water Systems PEO-CS-CSS	- / 3.118	- / 0.102	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 3.220	
Modification Item 2 of 5: Army Watercraft Systems													
Subtotal: Army Watercraft Systems	- / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	
Modification Item 3 of 5: AN/PSS-14 (HSTAMIDS)													
A Kits													
Recurring													
AN/PSS-14C	7,204 / 51.172	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	7,204 / 51.172	
HMDS	- / 8.740	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 8.740	
Subtotal: Recurring	7,204 / 59.912	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	7,204 / 59.912	
Non-Recurring													
AN/PSS-14C	- / 3.433	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 3.433	
HMDS	- / 0.591	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.591	
Subtotal: Non-Recurring	- / 4.024	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 4.024	
Subtotal: AN/PSS-14 (HSTAMIDS)	7,204 / 63.936	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	7,204 / 63.936	
Modification Item 4 of 5: Force Provider													
A Kits													
Recurring													
Force Provider (ESWDS)	- / -	- / -	17 / 13.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	17 / 13.000	
Subtotal: Recurring	- / -	- / -	17 / 13.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	17 / 13.000	
Subtotal: Force Provider	- / -	- / -	17 / 13.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	17 / 13.000	
Modification Item 5 of 5: Adjustments													
A Kits													
Non-Recurring													
Adjustments	- / 171.582	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 171.582	

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 90	P-1 Line Item Number / Title: 1110MA4500 / Modification Of In-Svc Equipment (OPA-3)	Modification Number / Title: MA4502 / INSTALLATION OF MODIFICATIONS

ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:
---------------------------------------------------------	------------------------

Models of Systems Affected: -	Modification Type: -	Related RDT&E PEs:
--------------------------------------	-----------------------------	-------------------------------

Financial Plan	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
<i>Subtotal: Non-Recurring</i>	- / 171.582	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 171.582
<i>Subtotal: Adjustments</i>	- / 171.582	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 171.582
<i>Subtotal: Procurement, All Modification Items</i>	7,204 / 238.636	- / 0.102	17 / 13.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	7,221 / 251.738
Installation												
<i>Modification Item 2 of 5: Army Watercraft Systems</i>	- / 22.420	- / 2.796	- / 3.438	- / 3.397	- / -	- / 3.397	- / 4.506	- / 4.718	- / 4.584	- / 4.633	Continuing	Continuing
<i>Modification Item 3 of 5: AN/PSS-14 (HSTAMIDS)</i>	- / -	- / 9.408	- / 2.000	- / 1.854	- / -	- / 1.854	- / -	- / -	- / -	- / -	Continuing	Continuing
<i>Subtotal: Installation</i>	- / 22.420	- / 12.204	- / 5.438	- / 5.251	- / -	- / 5.251	- / 4.506	- / 4.718	- / 4.584	- / 4.633	Continuing	Continuing
Total												
Total Cost (Procurement + Support + Installation)	261.056	12.306	18.438	5.251	-	5.251	4.506	4.718	4.584	4.633	Continuing	Continuing

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 90	P-1 Line Item Number / Title: 1110MA4500 / Modification Of In-Svc Equipment (OPA-3)	Modification Number / Title: MA4502 / INSTALLATION OF MODIFICATIONS

ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:
---------------------------------------------------------	------------------------

Modification Item 1 of 5: Petroleum/Water Systems PEO-CS-CSS

Manufacturer Information

Manufacturer Name: -	Manufacturer Location: -
Administrative Leadtime (in Months):	Production Leadtime (in Months):

Dates	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
Contract Dates							
Delivery Dates							

Installation Information

Method of Implementation: -

Installation Cost	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2024	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2025	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -

Installation Schedule

	PYS	FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				FY 2025				TC	Tot								
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4										
In	1,631	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,631
Out	1,631	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,631

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 90	P-1 Line Item Number / Title: 1110MA4500 / Modification Of In-Svc Equipment (OPA-3)	Modification Number / Title: MA4502 / INSTALLATION OF MODIFICATIONS

ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:
---------------------------------------------------------	------------------------

Modification Item 2 of 5: Army Watercraft Systems

Manufacturer Information

Manufacturer Name: Various	Manufacturer Location: Various
Administrative Leadtime (in Months):	Production Leadtime (in Months):

Dates	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
Contract Dates							
Delivery Dates							

Installation Information

Method of Implementation: -

Installation Cost	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	0 / 22.420	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	Continuing	Continuing
FY 2019	- / -	0 / 2.796	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	Continuing	Continuing
FY 2020	- / -	- / -	0 / 3.438	- / -	- / -	- / -	- / -	- / -	- / -	- / -	Continuing	Continuing
FY 2021	- / -	- / -	- / -	0 / 3.397	- / -	0 / 3.397	- / -	- / -	- / -	- / -	Continuing	Continuing
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	0 / 4.506	- / -	- / -	- / -	Continuing	Continuing
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 4.718	- / -	- / -	Continuing	Continuing
FY 2024	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 4.584	- / -	Continuing	Continuing
FY 2025	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 4.633	Continuing	Continuing
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	0 / 22.420	0 / 2.796	0 / 3.438	0 / 3.397	- / -	0 / 3.397	0 / 4.506	0 / 4.718	0 / 4.584	0 / 4.633	Continuing	Continuing

Installation Schedule

	PYS	FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				FY 2025				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1
Out	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 90	P-1 Line Item Number / Title: 1110MA4500 / Modification Of In-Svc Equipment (OPA-3)	Modification Number / Title: MA4502 / INSTALLATION OF MODIFICATIONS

ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:
---------------------------------------------------------	------------------------

Modification Item 3 of 5: AN/PSS-14 (HSTAMIDS)

Manufacturer Information

Manufacturer Name: L3 CyTerra	Manufacturer Location: Orlando, Fl
Administrative Leadtime (in Months):	Production Leadtime (in Months):

Dates	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
Contract Dates	Dec 2018						
Delivery Dates	Jan 2019						

Installation Information

Method of Implementation: -

Installation Cost	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	0 / 9.408	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	Continuing	Continuing
FY 2020	- / -	- / -	0 / 2.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	Continuing	Continuing
FY 2021	- / -	- / -	- / -	0 / 1.854	- / -	0 / 1.854	- / -	- / -	- / -	- / -	Continuing	Continuing
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2024	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2025	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	0 / 9.408	0 / 2.000	0 / 1.854	- / -	0 / 1.854	- / -	- / -	- / -	- / -	Continuing	Continuing

Installation Schedule

	PYS	FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				FY 2025				TC	Tot						
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4								
In	7,038	166	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7,204
Out	6,788	250	166	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7,204	

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 90	P-1 Line Item Number / Title: 1110MA4500 / Modification Of In-Svc Equipment (OPA-3)	Modification Number / Title: MA4502 / INSTALLATION OF MODIFICATIONS

ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:
---------------------------------------------------------	------------------------

Modification Item 4 of 5: Force Provider

Manufacturer Information

Manufacturer Name: TBD	Manufacturer Location: TBD
Administrative Leadtime (in Months): 2	Production Leadtime (in Months):

Dates	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
Contract Dates	Sep 2020						
Delivery Dates	Sep 2021						

Installation Information

Method of Implementation: New Contract

Installation Cost	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2024	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2025	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -

Installation Schedule

	PYS	FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				FY 2025				TC	Tot							
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4									
In	692	-	-	-	-	-	-	-	17	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Out	680	4	4	4	-	-	-	-	-	-	-	-	17	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2021 Army					Date: February 2020		
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 90			P-1 Line Item Number / Title: 1110MA4500 / Modification Of In-Svc Equipment (OPA-3)			Modification Number / Title: MA4502 / INSTALLATION OF MODIFICATIONS	
ID Code (A=Service Ready, B=Not Service Ready) :					MDAP/MAIS Code:		
Modification Item 5 of 5: Adjustments							
Manufacturer Information							
Manufacturer Name: -				Manufacturer Location: -			
Administrative Leadtime (<i>in Months</i>):				Production Leadtime (<i>in Months</i>):			
Dates	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
Contract Dates							
Delivery Dates							
Installation Information							
Method of Implementation (Organic): -					Installation Quantity: 0		

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 90	P-1 Line Item Number / Title: 1110MA4500 / Modification Of In-Svc Equipment (OPA-3)	Modification Number / Title: MA4504 / TACTICAL BRIDGING MODIFICATIONS

ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:
---------------------------------------------------------	------------------------

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	64.684	2.918	10.433	7.848	-	7.848	2.208	5.321	6.749	-	Continuing	Continuing
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	64.684	2.918	10.433	7.848	-	7.848	2.208	5.321	6.749	-	Continuing	Continuing
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	64.684	2.918	10.433	7.848	-	7.848	2.208	5.321	6.749	-	Continuing	Continuing

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Thousands</i>)	2,230.483	-	695.533	523.200	-	523.200	315.429	253.381	269.960	-	Continuing	Continuing

Description:

Bridging (PEO CS & CSS) - FY 2021 Base procurement dollars in the amount of \$7.848 million supports the following Bridging upgrades:

Modification Item #1: FY 2021 Base procurement dollars in the amount of \$5.783 million supports the Dry Support Bridge (DSB) 46 meter retrofit upgrade kits enabling the fielded 40 meter DSB Systems the capability to bridge gaps up to 46 meters, increasing its gap crossing capability by 15%.

Modification Item #2: This modification item is not funded in FY2021.

Modification Item #3: FY 2021 Base procurement dollars in the amount of \$1.665 million supports the Rapidly Emplaced Bridge System (REBS) V3 Kits for REBS modifications and modernization through installation of a heating device for the winch, decentralization of the hydraulic valves to shorten the distance between valves and cylinders, and installation of a hydraulic power pack to use CBT as the main power source. This modification increases the reliability and durability of the REBS launcher.

Modification Items #4 and #5: These modification items are not funded in FY2021.

Modification Item #6: FY 2021 Base procurement dollars in the amount of \$0.400 million supports Interim Contractor Logistics Support (ICLS) under Urgent Materiel Release (UMR) for the Rapidly Emplaced Bridge System (REBS) V3 until Full Materiel Release (FMR) is achieved in June 2021.

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
Army	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	2.918	10.433	1.908	-	1.908	2.208	5.321	-	-
ANG	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	-	-	2.376	-	2.376	-	-	6.749	-
AR	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	-	-	3.564	-	3.564	-	-	-	-
Total:	Quantity	-	-	-	-	-	-	-	-	-

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 90	P-1 Line Item Number / Title: 1110MA4500 / Modification Of In-Svc Equipment (OPA-3)	Modification Number / Title: MA4504 / TACTICAL BRIDGING MODIFICATIONS

ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:
---------------------------------------------------------	------------------------

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
Secondary Distribution	Total Obligation Authority	2.918	10.433	7.848	-	7.848	2.208	5.321	6.749	-

Development Status/Major Development Milestones

Date	Title	Description
Jun 2021	Rapidly Emplaced Bridge System (REBS) V3 Full Materiel Release (FMR)	

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2021 Army										Date: February 2020			
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 90				P-1 Line Item Number / Title: 1110MA4500 / Modification Of In-Svc Equipment (OPA-3)						Modification Number / Title: MA4504 / TACTICAL BRIDGING MODIFICATIONS			
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:						
Models of Systems Affected: Dry Support Bridge			Modification Type: Equipment Upgrade					Related RDT&E PEs:					
Financial Plan	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total	
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	
Procurement													
Modification Item 1 of 6: Tactical Bridging Mods - DSB 46M Upgrade Kits													
A Kits													
Recurring													
DSB 46 Meter Bridge	63 / 60.456	- / -	15 / 6.387	10 / 4.229	- / -	10 / 4.229	- / -	- / -	- / -	- / -	- / -	88 / 71.072	
Subtotal: Recurring	63 / 60.456	- / -	15 / 6.387	10 / 4.229	- / -	10 / 4.229	- / -	- / -	- / -	- / -	- / -	88 / 71.072	
Subtotal: Tactical Bridging Mods - DSB 46M Upgrade Kits	63 / 60.456	- / -	15 / 6.387	10 / 4.229	- / -	10 / 4.229	- / -	- / -	- / -	- / -	- / -	88 / 71.072	
Modification Item 2 of 6: Tactical Bridging Mods - DSB Hydraulic Adapter Kits													
A Kits													
Non-Recurring													
Tactical Bridging Mods - DSB Hydraulic A	- / -	- / -	27 / 1.655	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	27 / 1.655	
Subtotal: Non-Recurring	- / -	- / -	27 / 1.655	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	27 / 1.655	
Subtotal: Tactical Bridging Mods - DSB Hydraulic Adapter Kits	- / -	- / -	27 / 1.655	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	27 / 1.655	
Modification Item 3 of 6: Tactical Bridging Mods - REBS V3 Kits													
A Kits													
Recurring													
Rapidly Emplaced Bridge V3 Kits	- / -	- / -	- / -	2 / 0.859	- / -	2 / 0.859	2 / 1.129	8 / 2.016	8 / 2.057	- / -	- / -	20 / 6.061	
Subtotal: Recurring	- / -	- / -	- / -	2 / 0.859	- / -	2 / 0.859	2 / 1.129	8 / 2.016	8 / 2.057	- / -	- / -	20 / 6.061	
Non-Recurring													
Rapidly Emplaced Bridge V3 Kits	- / 1.389	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 1.389	
Subtotal: Non-Recurring	- / 1.389	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 1.389	
Subtotal: Tactical Bridging Mods - REBS V3 Kits	- / 1.389	- / -	- / -	2 / 0.859	- / -	2 / 0.859	2 / 1.129	8 / 2.016	8 / 2.057	- / -	- / -	20 / 7.450	
Modification Item 4 of 6: Tactical Bridging Mods - REBS V3 Tech Manual Revis													
A Kits													
Non-Recurring													
REBS V3 Tech Manual Revision	- / -	- / 0.803	- / 0.797	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 1.600	

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2021 Army										Date: February 2020			
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 90				P-1 Line Item Number / Title: 1110MA4500 / Modification Of In-Svc Equipment (OPA-3)						Modification Number / Title: MA4504 / TACTICAL BRIDGING MODIFICATIONS			
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:						
Models of Systems Affected: Dry Support Bridge			Modification Type: Equipment Upgrade					Related RDT&E PEs:					
Financial Plan	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total	
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	
<i>Subtotal: Non-Recurring</i>	- / -	- / 0.803	- / 0.797	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 1.600	
<i>Subtotal: Tactical Bridging Mods - REBS V3 Tech Manual Revis</i>	- / -	- / 0.803	- / 0.797	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 1.600	
Modification Item 5 of 6: Tactical Bridging Mods - DSB 46M FMR Transprt Test													
A Kits													
Non-Recurring													
DSB 46M FMR Transportability Testing	- / -	- / 1.424	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 1.424	
<i>Subtotal: Non-Recurring</i>	- / -	- / 1.424	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 1.424	
<i>Subtotal: Tactical Bridging Mods - DSB 46M FMR Transprt Test</i>	- / -	- / 1.424	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 1.424	
Modification Item 6 of 6: Tactical Bridging Mods - REBS V3 UMR ICLS													
A Kits													
Non-Recurring													
REBS V3 UMR ICLS	1 / 0.125	1 / 0.691	- / -	1 / 0.400	- / -	1 / 0.400	- / -	- / -	- / -	- / -	- / -	3 / 1.216	
<i>Subtotal: Non-Recurring</i>	1 / 0.125	1 / 0.691	- / -	1 / 0.400	- / -	1 / 0.400	- / -	- / -	- / -	- / -	- / -	3 / 1.216	
<i>Subtotal: Tactical Bridging Mods - REBS V3 UMR ICLS</i>	1 / 0.125	1 / 0.691	- / -	1 / 0.400	- / -	1 / 0.400	- / -	- / -	- / -	- / -	- / -	3 / 1.216	
<i>Subtotal: Procurement, All Modification Items</i>	64 / 61.970	1 / 2.918	42 / 8.839	13 / 5.488	- / -	13 / 5.488	2 / 1.129	8 / 2.016	8 / 2.057	- / -	- / -	138 / 84.417	
Installation													
Modification Item 1 of 6: Tactical Bridging Mods - DSB 46M Upgrade Kits	63 / 2.714	- / -	15 / 1.594	10 / 1.554	- / -	10 / 1.554	- / -	- / -	- / -	- / -	Continuing	Continuing	
Modification Item 3 of 6: Tactical Bridging Mods - REBS V3 Kits	- / -	- / -	- / -	3 / 0.806	- / -	3 / 0.806	5 / 1.079	13 / 3.305	17 / 4.692	- / -	Continuing	Continuing	
<i>Subtotal: Installation</i>	63 / 2.714	- / -	15 / 1.594	13 / 2.360	- / -	13 / 2.360	5 / 1.079	13 / 3.305	17 / 4.692	- / -	Continuing	Continuing	
Total													
Total Cost (Procurement + Support + Installation)	64.684	2.918	10.433	7.848	-	7.848	2.208	5.321	6.749	-	Continuing	Continuing	

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 90	P-1 Line Item Number / Title: 1110MA4500 / Modification Of In-Svc Equipment (OPA-3)	Modification Number / Title: MA4504 / TACTICAL BRIDGING MODIFICATIONS

ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:
---------------------------------------------------------	------------------------

Modification Item 1 of 6: Tactical Bridging Mods - DSB 46M Upgrade Kits

Manufacturer Information

Manufacturer Name: WFEL LTD	Manufacturer Location: UK
Administrative Leadtime (<i>in Months</i>): 3	Production Leadtime (<i>in Months</i>): 6

Dates	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
Contract Dates		Mar 2020	Mar 2021				
Delivery Dates		Sep 2020	Jul 2121				

Installation Information

Method of Implementation: Firm Fixed Price Contract

Installation Cost	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	63 / 2.714	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	Continuing	Continuing
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	15 / 1.594	- / -	- / -	- / -	- / -	- / -	- / -	- / -	Continuing	Continuing
FY 2021	- / -	- / -	- / -	10 / 1.554	- / -	10 / 1.554	- / -	- / -	- / -	- / -	- / -	10 / 1.554
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2024	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2025	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	63 / 2.714	- / -	15 / 1.594	10 / 1.554	- / -	10 / 1.554	- / -	- / -	- / -	- / -	Continuing	Continuing

Installation Schedule

	PYS	FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				FY 2025				TC	Tot				
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4						
In	63	-	-	-	-	-	-	-	2	3	4	4	4	3	2	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	87
Out	63	-	-	-	-	-	-	-	2	3	4	4	4	3	2	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	87

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 90	P-1 Line Item Number / Title: 1110MA4500 / Modification Of In-Svc Equipment (OPA-3)	Modification Number / Title: MA4504 / TACTICAL BRIDGING MODIFICATIONS

ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:
---------------------------------------------------------	------------------------

Modification Item 2 of 6: Tactical Bridging Mods - DSB Hydraulic Adapter Kits

Manufacturer Information

Manufacturer Name: WFEL LTD	Manufacturer Location: UK
Administrative Leadtime (in Months): 3	Production Leadtime (in Months): 6

Dates	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
Contract Dates		Dec 2019					
Delivery Dates		Jul 2020					

Installation Information

Method of Implementation: Firm Fixed Price Contract

Installation Cost	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2024	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2025	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -

Installation Schedule

	PYS	FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				FY 2025				TC	Tot								
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4										
In	-	-	-	-	-	27	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Out	-	-	-	-	-	-	-	-	27	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 90	P-1 Line Item Number / Title: 1110MA4500 / Modification Of In-Svc Equipment (OPA-3)	Modification Number / Title: MA4504 / TACTICAL BRIDGING MODIFICATIONS

ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:
---------------------------------------------------------	------------------------

Modification Item 3 of 6: Tactical Bridging Mods - REBS V3 Kits

Manufacturer Information

Manufacturer Name: GENERAL DYNAMICS EUROPEAN LAND SYST	Manufacturer Location: Kaiserslautern, Germany
Administrative Leadtime (in Months): 2	Production Leadtime (in Months): 4

Dates	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
Contract Dates			Dec 2020	Dec 2021	Dec 2022	Dec 2023	
Delivery Dates			Jul 2021	Jul 2022	Jul 2023	Jul 2024	

Installation Information

Method of Implementation: Firm Fixed Price Contract

Installation Cost	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	3 / 0.806	- / -	3 / 0.806	- / -	- / -	- / -	- / -	Continuing	Continuing
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	5 / 1.079	- / -	- / -	- / -	Continuing	Continuing
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	13 / 3.305	- / -	- / -	Continuing	Continuing
FY 2024	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	17 / 4.692	- / -	- / -	17 / 4.692
FY 2025	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	- / -	- / -	3 / 0.806	- / -	3 / 0.806	5 / 1.079	13 / 3.305	17 / 4.692	- / -	Continuing	Continuing

Installation Schedule

	PYS	FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				FY 2025				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	-	-	-	-	-	-	-	-	-	-	1	1	-	-	1	1	-	2	2	2	2	2	2	2	2	-	-	-	-	-	20
Out	-	-	-	-	-	-	-	-	-	-	1	1	-	-	1	1	-	2	2	2	2	2	2	2	2	-	-	-	-	-	20

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 90	P-1 Line Item Number / Title: 1110MA4500 / Modification Of In-Svc Equipment (OPA-3)	Modification Number / Title: MA4504 / TACTICAL BRIDGING MODIFICATIONS

ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:
---------------------------------------------------------	------------------------

Modification Item 5 of 6: Tactical Bridging Mods - DSB 46M FMR Transprt Test

Manufacturer Information

Manufacturer Name: WFEL LTD	Manufacturer Location: Stockport, UK
Administrative Leadtime (in Months):	Production Leadtime (in Months):

Dates	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
Contract Dates	May 2019						
Delivery Dates							

Installation Information

Method of Implementation: Various

Installation Cost	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2024	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2025	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -

Installation Schedule

	PYS	FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				FY 2025				TC	Tot	
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4			
In	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Out	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 90	P-1 Line Item Number / Title: 1110MA4500 / Modification Of In-Svc Equipment (OPA-3)	Modification Number / Title: MA4504 / TACTICAL BRIDGING MODIFICATIONS

ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:
---------------------------------------------------------	------------------------

Modification Item 6 of 6: Tactical Bridging Mods - REBS V3 UMR ICLS

Manufacturer Information

Manufacturer Name: GENERAL DYNAMICS EUROPEAN LAND SYSTEMS	Manufacturer Location: Kaiserslautern, Germany
Administrative Leadtime (in Months):	Production Leadtime (in Months):

Dates	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
Contract Dates							
Delivery Dates							

Installation Information

Method of Implementation: Firm Fixed Price Contract

Installation Cost	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2024	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2025	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -

Installation Schedule

	PYS	FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				FY 2025				TC	Tot	
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4			
In	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Out	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1

UNCLASSIFIED

Exhibit P-40a, Budget Item Justification For Aggregated Modification Items: PB 2021 Army															Date: February 2020				
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 90					P-1 Line Item Number / Title: 1110MA4500 / Modification Of In-Svc Equipment (OPA-3)										Aggregated Modification Items Title: R01121 / EOD MODIFICATION OF IN-SVC EQUIPMENT				

Item Number / Title	ID CD	MDAP/MAIS Code	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
			Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
EOD MODIFICATION OF IN-SVC EQUIPMENT																				
R01121 / EOD MODIFICATION OF IN-SVC EQUIPMENT			61.778	158	9.761	5.466	6,326	34.578	93.035	313	29.120	-	-	-	-	-	-	-	-	-
<i>Secondary Distribution</i>																				
Army			-	-	-	6,326	34.578	-	313	29.120	-	-	-	-	-	-	-	-	-	-
Subtotal: EOD MODIFICATION OF IN-SVC EQUIPMENT			-	-	9.761	-	-	34.578	-	-	29.120	-	-	-	-	-	-	-	-	-
Total			-	-	9.761	-	-	34.578	-	-	29.120	-	-	-	-	-	-	-	-	-

Item Number / Title	ID CD	MDAP/MAIS Code	FY 2022			FY 2023			FY 2024			FY 2025			To Complete			Total Cost		
			Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
EOD MODIFICATION OF IN-SVC EQUIPMENT																				
R01121 / EOD MODIFICATION OF IN-SVC EQUIPMENT			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10.808	6,797	73.459
<i>Secondary Distribution</i>																				
Army			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: EOD MODIFICATION OF IN-SVC EQUIPMENT			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	73.459
Total			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	73.459

Note: Subtotals or Totals in this Exhibit P-40a may not be exact or sum exactly, due to rounding.

Modification Information:

Item Number / Title	Models of Systems Affected	Modification Type
EOD MODIFICATION OF IN-SVC EQUIPMENT		
R01121 / EOD MODIFICATION OF IN-SVC EQUIPMENT	Explosive Ordnance Disposal Equipment	Equipment Upgrade

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 90: Other Support Equipment	P-1 Line Item Number / Title: 1220MA0450 / Production Base Support (OTH)
-----------------------------------------------------------------------------------------------------------------------------------------------------------------------	------------------------------------------------------------------------------------

ID Code (A=Service Ready, B=Not Service Ready):	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
--------------------------------------------------------	-----------------------------------------------	--------------------------------------------

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	243.280	2.301	-	-	-	-	-	-	-	-	-	245.581
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	243.280	2.301	-	-	-	-	-	-	-	-	-	245.581
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	243.280	2.301	-	-	-	-	-	-	-	-	-	245.581

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

This program provided funding to the Army Test and Evaluation Command (ATEC), which modernized test facilities used in production testing of General Support Equipment (including trucks, trailers, generators, soldier support equipment, etc.). It sustained Army production test capabilities through upgrade and replacement of instrumentation and equipment that was technologically and economically obsolete. Modernization of test instrumentation and equipment provided increased automation and efficiencies, improved data quality and quantity and cost avoidances to Army Program Managers. Programmed funding was used to upgrade or replace production test instrumentation and equipment at Aberdeen Test Center (ATC), Aberdeen Proving Ground, MD; and Yuma Test Center (YTC), Yuma Proving Ground, AZ (including YTC's Cold Regions Test Center (CRTC), Fort Greely, AK).

Secondary Distribution	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
Army									
Quantity	-	-	-	-	-	-	-	-	-
Total Obligation Authority	2.301	-	-	-	-	-	-	-	-
Total:									
Secondary Distribution									
Quantity	-	-	-	-	-	-	-	-	-
Total Obligation Authority	2.301	-	-	-	-	-	-	-	-

Justification:

In accordance with section 1815 of the FY 2008 National Defense Authorization Act (P.L. 110-181), this item is necessary for use by the active and reserve components of the Armed Forces for homeland defense missions, domestic emergency responses and providing military support to civil authorities.

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 90: Other Support Equipment	P-1 Line Item Number / Title: 1500MA9160 / BUILDING, PRE-FAB, RELOCATABLE
-----------------------------------------------------------------------------------------------------------------------------------------------------------------------	-------------------------------------------------------------------------------------

ID Code (A=Service Ready, B=Not Service Ready):	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
--------------------------------------------------------	-----------------------------------------------	--------------------------------------------

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	995.812	6.000	109.754	-	31.845	31.845	29.327	29.913	30.511	30.816	-	1,263.978
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	995.812	6.000	109.754	-	31.845	31.845	29.327	29.913	30.511	30.816	-	1,263.978
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	995.812	6.000	109.754	-	31.845	31.845	29.327	29.913	30.511	30.816	-	1,263.978

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The Building, Pre-Fab, Relocatable Program (MA9160) funding line acquires the relocatable building Restoration and Modernization (RM) activity. This is a new start effort. This supports the capability to emplace and lifecycle relocatable buildings in the CENTCOM region. Restoration and Modernization (RM) provides resources which support Facilities Restoration and Modernization, Demolition, and Utilities Restoration & Modernization.

MA9160 / Relocatable Building Program Base & Overseas Contingency Operations (OCO) OCONUS:

This funding line includes Base and OCO funding. The funding line emplaces and modernizes relocatable buildings at multiple locations across Southwest Asia supporting multiple operations including Operation Spartan Shield (OSS), Operation Inherent Resolve (OIR), and Operation Freedom Sentinel (OFS).

Base: In FY21, the Army is programming Base and enduring OCO to support enduring bases and must emplace and replace relocatable buildings that comprise a portion of the facilities in which troops work and live.

OCO: In FY21, the Army is replacing relocatable buildings that comprise a large portion of the facilities in which troops work and live for the Operation Freedom Sentinel (OFS) mission and emplacing relocatable buildings for billeting at LSA Danger on Erbil International Airport, Iraq and LSA Union III, Iraq for US personnel in support of Operation Inherent Resolve (OIR).

All funding goes to the Active Component.

Secondary Distribution	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
Army									
Quantity	-	-	-	-	-	-	-	-	-
Total Obligation Authority	6.000	109.754	-	31.845	31.845	29.327	29.913	30.511	30.816
Total:									
Quantity	-	-	-	-	-	-	-	-	-

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 90: Other Support Equipment	P-1 Line Item Number / Title: 1500MA9160 / BUILDING, PRE-FAB, RELOCATABLE
-----------------------------------------------------------------------------------------------------------------------------------------------------------------------	-------------------------------------------------------------------------------------

ID Code (A=Service Ready, B=Not Service Ready):	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
--------------------------------------------------------	-----------------------------------------------	--------------------------------------------

Line Item MDAP/MAIS Code: N/A

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
Secondary Distribution	Total Obligation Authority	6.000	109.754	-	31.845	31.845	29.327	29.913	30.511	30.816

Justification:
 FY 2021 Base procurement dollars in the amount of \$27.752 million procures up to 130 relocatable buildings to emplace and lifecycle needed facilities for modernization in the Southwest Asia (SWA) Area of Responsibility (AOR) in support of Operation Spartan Shield (OSS) at Army locations. These procurements include offices, armories, and billeting in enduring locations within countries such as Kuwait, Qatar and U.A.E. The buildings are needed to provide and/or replace working and living facilities for troops in the enduring locations. Without the new buildings, troops would continue to live and work in expeditionary facilities and tents in enduring locations with exceptionally hot climates creating safety and health risks. Without the ability to replace relocatable buildings that are beyond life cycle, troops would continue to live in buildings that will become unrepairable and expose them to potential electrical dangers. There are several thousand relocatable buildings within the Operation Spartan Shield (OSS) footprint that will be included in this life cycle program.

FY2021 OCO procurement dollars in the amount of \$3.093 million procures up to 14 relocatable buildings to replace facilities for the Operation Freedom Sentinel (OFS) mission and to emplace needed facilities at LSA Danger on Erbil International Airport, Iraq and LSA Union III, Iraq for US personnel in support of Operation Inherent Resolve (OIR). Without the new buildings, troops would continue to live in buildings that will become unrepairable and expose them to potential electrical dangers and troops would continue to live and work in expeditionary facilities and tents in locations with exceptionally hot climates creating safety and health risks.

In FY 2021, \$0.000 million in Reimbursable Manpower for this line has been realigned from Reimbursable Civilian Funding to Direct Operations and Maintenance. Program support costs have been accurately updated to reflect the realignments.

All funding goes to the Active Component.

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 90: Other Support Equipment	P-1 Line Item Number / Title: 1572MA6700 / Special Equipment For User Testing
-----------------------------------------------------------------------------------------------------------------------------------------------------------------------	-----------------------------------------------------------------------------------------

ID Code (A=Service Ready, B=Not Service Ready):	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
--------------------------------------------------------	-----------------------------------------------	--------------------------------------------

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	21	12	-	-	-	-	-	-	-	-	-	33
Gross/Weapon System Cost (<i>\$ in Millions</i>)	662.166	11.605	9.821	-	-	-	-	-	-	-	-	683.592
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	662.166	11.605	9.821	-	-	-	-	-	-	-	-	683.592
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	662.166	11.605	9.821	-	-	-	-	-	-	-	-	683.592

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Thousands</i>)	31,531.714	967.083	-	-	-	-	-	-	-	-	-	20,714.909

Description:

Special Equipment for User Testing is comprised of multiple programs for the Major Operational Testing Instrumentation and Army Threat Simulator Program. Program provides funding for Major Operational Testing Instrumentation, Major Field Instrumentation for Operational Testing (OT), Force Development Testing and Experimentation (FDTE), and Army Warfighting Experiments (AWE). Initiatives are tied to tactical and instrumentation systems that support each of the five joint functional concepts outlined in the Army Modernization Plan (Force Application; Protection; Focused Logistics; Battlespace Awareness; Command and Control). The Army Threat Simulator Program procures actual foreign hardware and Non-Developmental Items (NDI) (e.g., chassis, subsystems, commercial equipment, or actual threat weapons), which are integrated into a threat simulator design for user testing and training. The program also procures a variety of test assets, such as Threat Battle Command Force, Threat Operations, Advanced Jammer Suite, and Advanced Electronic Support Sensor Suite.

Special Equipment for User Testing programs provides support at: Army Test and Evaluation Command (ATEC) and Operational Test Command (OTC) facilities to include Transformation Technology Directorate (TTD) at Fort Hood, TX; Fire Support Test Directorate (FSTD) at Fort Sill, OK; Airborne Special Operations Test Directorate (ABSOTD) at Fort Bragg, NC; Air Defense Artillery Test Directorate (ADATD) and Electronic Proving Ground (EPG) at Fort Huachuca, AZ; Aberdeen Test Center (ATC); Redstone Test Center (RTC); White Sands Test Center (WSTC); and Yuma Test Center (YTC).

Special Equipment for User Testing was moved to MA6820 for the FY2021 funding request.

Secondary Distribution	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
Army	Quantity	12	-	-	-	-	-	-	-
	Total Obligation Authority	11.605	9.821	-	-	-	-	-	-
Total: Secondary Distribution	Quantity	12	-	-	-	-	-	-	-
	Total Obligation Authority	11.605	9.821	-	-	-	-	-	-

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 90: Other Support Equipment	P-1 Line Item Number / Title: 1573MA6820 / Special Equipment for Test and Evaluation
-----------------------------------------------------------------------------------------------------------------------------------------------------------------------	------------------------------------------------------------------------------------------------

ID Code (A=Service Ready, B=Not Service Ready):	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
--------------------------------------------------------	-----------------------------------------------	--------------------------------------------

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	23	-	23	16	24	22	23	-	108
Gross/Weapon System Cost (<i>\$ in Millions</i>)	-	-	-	39.436	-	39.436	45.933	53.461	51.572	50.993	-	241.395
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	-	-	-	39.436	-	39.436	45.933	53.461	51.572	50.993	-	241.395
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	-	-	-	39.436	-	39.436	45.933	53.461	51.572	50.993	-	241.395

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Thousands</i>)	-	-	-	1,714.609	-	1,714.609	2,870.813	2,227.542	2,344.182	2,217.087	-	2,235.139

Description:

Special Equipment for User Testing is comprised of multiple programs for the Major Developmental & Operational Testing Instrumentation and Army Threat Simulator Program. Program provides funding for Major Operational Testing Instrumentation, Major Field Instrumentation for Operational Testing (OT), Force Development Testing and Experimentation (FDTE), and Army Warfighting Experiments (AWE). Initiatives are tied to tactical and instrumentation systems that support each of the five joint functional concepts outlined in the Army Modernization Plan (Force Application; Protection; Focused Logistics; Battlespace Awareness; Command and Control). The Army Threat Simulator Program procures actual foreign hardware and Non-Developmental Items (NDI) (e.g., chassis, subsystems, commercial equipment, or actual threat weapons), which are integrated into a threat simulator design for user testing and training. The program also procures a variety of test assets, such as Threat Battle Command Force, Threat Operations, Advanced Jammer Suite, and Advanced Electronic Support Sensor Suite.

Special Equipment for User Testing programs provides support at: Army Test and Evaluation Command (ATEC) and Operational Test Command (OTC) facilities to include Transformation Technology Directorate (TTD) at Fort Hood, TX; Fire Support Test Directorate (FSTD) at Fort Sill, OK; Airborne Special Operations Test Directorate (ABSOTD) at Fort Bragg, NC; Air Defense Artillery Test Directorate (ADATD) and Electronic Proving Ground (EPG) at Fort Huachuca, AZ; Aberdeen Test Center (ATC); Redstone Test Center (RTC); White Sands Test Center (WSTC); and Yuma Test Center (YTC).

Optics Modernization will provide a cost-effective and technologically superior replacement for the aging fleet of optical tracking systems at WSTC, YTC, ATC, RTC and OTC. This capability will consist of two different optical tracking systems: a small, highly dynamic Close-In Optical Tracking System readily deployed at ground level or on elevated platforms; and a medium-sized Fly-Out Optical Tracking System to accommodate larger payloads for longer range imaging requirements. Both systems will incorporate multi-waveband optics and sensors to allow simultaneous sensing in visible and infrared bands. Remote operability, weatherization, and improved data fusion with other range sensor systems will provide the efficiency and robustness unavailable with current architecture. Optics Modernization supports the Long Range Precision Fires, Next Generation Combat Vehicle, Future Vertical Lift and Air & Missile Defense Cross-Functional teams.

This program is not a new start effort. Funds for Special Equipment for User Testing / Threat Systems have transitioned under MA6700.

Secondary Distribution	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
Army									
Quantity	-	-	23	-	23	16	24	22	23
Total Obligation Authority	-	-	39.436	-	39.436	45.933	53.461	51.572	50.993

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 90: Other Support Equipment	P-1 Line Item Number / Title: 1573MA6820 / Special Equipment for Test and Evaluation
-----------------------------------------------------------------------------------------------------------------------------------------------------------------------	------------------------------------------------------------------------------------------------

ID Code (A=Service Ready, B=Not Service Ready):	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
--------------------------------------------------------	-----------------------------------------------	--------------------------------------------

Line Item MDAP/MAIS Code: N/A

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
Total:	Quantity	-	-	23	-	23	16	24	22	23
Secondary Distribution	Total Obligation Authority	-	-	39.436	-	39.436	45.933	53.461	51.572	50.993

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 90: Other Support Equipment	P-1 Line Item Number / Title: 1573MA6820 / Special Equipment for Test and Evaluation
-----------------------------------------------------------------------------------------------------------------------------------------------------------------------	------------------------------------------------------------------------------------------------

ID Code (A=Service Ready, B=Not Service Ready):	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
--------------------------------------------------------	-----------------------------------------------	--------------------------------------------

Line Item MDAP/MAIS Code: N/A

Exhibits Schedule					Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-5	MA6821 / Optics Modernization	P-5a, P-21			- / -	- / -	- / -	5 / 28.925	- / -	5 / 28.925
P-5	MA6822 / Threat Systems	P-5a			- / -	- / -	- / -	18 / 10.511	- / -	18 / 10.511
P-40	Total Gross/Weapon System Cost				- / -	- / -	- / -	23 / 39.436	- / -	23 / 39.436

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

Justification:

In FY 2021, Optics Modernization funding in the amount of \$28.925 million will provide for the procurement of one Close-In system, four Fly-Out systems and one Auxiliary Trailer. These systems will be used at the White Sands Test Center (WSTC) in support of developmental testing requirements. This program leverages OSD/CTEIP funded development in order to modernize and enhance capabilities of optical tracking systems.

In FY2021, Threat Systems funding in the amount of \$10.511 million procures multiple threat systems (Electronic Warfare (EW); Command, Control, and Communications; and Advanced Jamming) required to support the developmental and operational testing and training of network centric threat scenarios. These threat scenarios are critical to integrating digital battlefield data collection and analysis tools that support the establishment of robust command and control capabilities. These tools will collect, store, and analyze data from this new dimension of digital command and control battlefield warfare capabilities. The Army will field Advanced Jammer capabilities to fulfill developmental and operational test requirements for ongoing Joint Warfighter Assessments (JWA) and Army Futures Command Cross Functional Teams (CFTs). Threat Systems provides a validated threat in support of Army efforts to meet multi-domain operations by 2028. Validated threat jammers are a critical element to maintain threat EW density and realism required by Director, Operational Test and Evaluation to provide operationally relevant environments for Test and Evaluation (T&E) and training. Fielded threat capabilities are operated, maintained, and sustained as one integrated threat electronic warfare force in support of Army T&E activities. Threat EW costs fluctuate from year-to-year based on usage, spare part needs, tech refresh, and requirements.

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 90	P-1 Line Item Number / Title: 1573MA6820 / Special Equipment for Test and Evaluation	Item Number / Title [DODIC]: MA6821 / Optics Modernization

ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:
---------------------------------------------------------	------------------------

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Procurement Quantity <i>(Units in Each)</i>	-	-	-	5	-	5
Gross/Weapon System Cost <i>(\$ in Millions)</i>	-	-	-	28.925	-	28.925
Less PY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-
Net Procurement (P-1) <i>(\$ in Millions)</i>	-	-	-	28.925	-	28.925
Plus CY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-
Total Obligation Authority <i>(\$ in Millions)</i>	-	-	-	28.925	-	28.925

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares <i>(\$ in Millions)</i>	-	-	-	-	-	-
Gross/Weapon System Unit Cost <i>(\$ in Thousands)</i>	-	-	-	5,785.000	-	5,785.000

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
Flyaway Cost																		
Recurring Cost																		
Close-In System ^(t)	-	-	-	-	-	-	-	-	-	8,511.000	1	8.511	-	-	-	8,511.000	1	8.511
Fly-Out System ^(t)	-	-	-	-	-	-	-	-	-	4,966.750	4	19.867	-	-	-	4,966.750	4	19.867
Aux Trailer ^(t)	-	-	-	-	-	-	-	-	-	547.000	1	0.547	-	-	-	547.000	1	0.547
<i>Subtotal: Recurring Cost</i>	-	-	-	-	-	-	-	-	-	-	-	28.925	-	-	-	-	-	28.925
<i>Subtotal: Flyaway Cost</i>	-	-	-	-	-	-	-	-	-	-	-	28.925	-	-	-	-	-	28.925
Gross/Weapon System Cost	-	-	-	-	-	-	-	-	-	5,785.000	5	28.925	-	-	-	5,785.000	5	28.925

Remarks:

This capability consists of two different optical tracking systems: a small, highly dynamic Close-In Optical Tracking System readily deployed at ground level or on elevated platforms; and a medium-sized Fly-Out Optical Tracking System to accommodate larger payloads for longer range imaging requirements.

Secondary Distribution	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Army					
Quantity	-	-	5	-	5
Total Obligation Authority	-	-	28.925	-	28.925
Total: Secondary Distribution					
Quantity	-	-	5	-	5
Total Obligation Authority	-	-	28.925	-	28.925

^(t) indicates the presence of a P-5a

UNCLASSIFIED

Exhibit P-5a, Procurement History and Planning: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 90	P-1 Line Item Number / Title: 1573MA6820 / Special Equipment for Test and Evaluation	Item Number / Title [DODIC]: MA6821 / Optics Modernization
----------------------------------------------------------------------------------	------------------------------------------------------------------------------------------------	----------------------------------------------------------------------

Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty <i>(Each)</i>	Unit Cost <i>(\$ K)</i>	Specs Avail Now?	Date Revision Available	RFP Issue Date
Close-In System ^(†)		2021	TBD / TBD	C / FFP	ACC-Orlando	Jul 2021	Jul 2022	1	8,511.000	Y		
Fly-Out System ^(†)		2021	TBD / TBD	C / FFP	ACC-Orlando	Jul 2021	Jul 2022	4	4,966.750	Y		
Aux Trailer		2021	TBD / TBD	C / FFP	ACC-Orlando	Jul 2021	Jul 2022	1	547.000	Y		

^(†) indicates the presence of a P-21

UNCLASSIFIED

Exhibit P-21, Production Schedule: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 90	P-1 Line Item Number / Title: 1573MA6820 / Special Equipment for Test and Evaluation	Item Number / Title [DODIC]: MA6821 / Optics Modernization
----------------------------------------------------------------------------------	------------------------------------------------------------------------------------------------	----------------------------------------------------------------------

MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Year)			Procurement Leadtime (Months)							
		MSR For 2021	1-8-5 For 2021	MAX For 2021	Initial				Reorder			
					ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1	ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1
1	TBD - TBD	1	5	5	0	9	13	22	0	0	0	0
2	TBD - TBD	1	5	5	0	9	13	22	0	0	0	0

"A" in the Delivery Schedule indicates the Contract Award Date.

Note: Due to space limitations, quantities in the Exhibit P-21 delivery calendar are truncated and rounded based on the maximum quantity in the calendar as follows. If the maximum quantity is less than or equal to than 9,999, all quantities are shown as each. If the maximum quantity is between 10,000 and 999,999 all quantities are shown in thousands. If the maximum quantity is between 1,000,000 and 999,999,999 all quantities are shown in millions (rounded to the nearest thousand). If the maximum quantity is equal or greater than 1,000,000,000 all quantities are shown in billions (rounded to the nearest million).

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 90	P-1 Line Item Number / Title: 1573MA6820 / Special Equipment for Test and Evaluation	Item Number / Title [DODIC]: MA6822 / Threat Systems
----------------------------------------------------------------------------------	------------------------------------------------------------------------------------------------	----------------------------------------------------------------

ID Code (A=Service Ready, B=Not Service Ready) : **MDAP/MAIS Code:**

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Procurement Quantity <i>(Units in Each)</i>	-	-	-	18	-	18
Gross/Weapon System Cost <i>(\$ in Millions)</i>	-	-	-	10.511	-	10.511
Less PY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-
Net Procurement (P-1) <i>(\$ in Millions)</i>	-	-	-	10.511	-	10.511
Plus CY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-
Total Obligation Authority <i>(\$ in Millions)</i>	-	-	-	10.511	-	10.511

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares <i>(\$ in Millions)</i>	-	-	-	-	-	-
Gross/Weapon System Unit Cost <i>(\$ in Thousands)</i>	-	-	-	583.944	-	583.944

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
Flyaway Cost																		
Recurring Cost																		
Threat Electronic Warfare ^(†)	-	-	-	-	-	-	-	-	-	830.000	8	6.640	-	-	-	830.000	8	6.640
Threat Information Warfare ^(†)	-	-	-	-	-	-	-	-	-	790.000	1	0.790	-	-	-	790.000	1	0.790
Threat Network and Mission Command ^(†)	-	-	-	-	-	-	-	-	-	342.333	9	3.081	-	-	-	342.333	9	3.081
<i>Subtotal: Recurring Cost</i>	-	-	-	-	-	-	-	-	-	-	-	10.511	-	-	-	-	-	10.511
<i>Subtotal: Flyaway Cost</i>	-	-	-	-	-	-	-	-	-	-	-	10.511	-	-	-	-	-	10.511
Gross/Weapon System Cost	-	-	-	-	-	-	-	-	-	583.944	18	10.511	-	-	-	583.944	18	10.511

Remarks:

Threat Electronic Warfare suites includes Next Generation Threat Communications Jammers and High Powered Advanced Jammers, Threat Information Warfare includes the Threat Operational Environments, and Threat Network and Mission Command includes Threat Battle Command Force Infrastructure and Command and Control Tactical Radio Networks.

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Army	Quantity	-	-	18	-	18
	Total Obligation Authority	-	-	10.511	-	10.511
Total:	Quantity	-	-	18	-	18

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army			Date: February 2020			
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 90		P-1 Line Item Number / Title: 1573MA6820 / Special Equipment for Test and Evaluation		Item Number / Title [DODIC]: MA6822 / Threat Systems		
ID Code (A=Service Ready, B=Not Service Ready) :			MDAP/MAIS Code:			
Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Secondary Distribution	Total Obligation Authority	-	-	10.511	-	10.511

(t) indicates the presence of a P-5a

UNCLASSIFIED

Exhibit P-5a, Procurement History and Planning: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 90	P-1 Line Item Number / Title: 1573MA6820 / Special Equipment for Test and Evaluation	Item Number / Title [DODIC]: MA6822 / Threat Systems
----------------------------------------------------------------------------------	------------------------------------------------------------------------------------------------	----------------------------------------------------------------

Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty <i>(Each)</i>	Unit Cost <i>(\$ K)</i>	Specs Avail Now?	Date Revision Available	RFP Issue Date
Threat Electronic Warfare		2021	General Dynamics C4 / Scottsdale, AZ	C / CPFF	PEO STRI, Orlando, FL	Jan 2021	Oct 2022	8	830.000	N		
Threat Information Warfare		2021	Northrup Grumman / Falls Church, VA	C / CPFF	PEO STRI, Orlando, FL	Dec 2020	Jan 2021	1	790.000	N		
Threat Network and Mission Command		2021	General Dynamics C4 / Scottsdale, AZ	C / CPFF	PEO STRI, Orlando, FL	Jan 2021	Jan 2022	9	342.333	N		

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 90: Other Support Equipment	P-1 Line Item Number / Title: 9219MA8975 / TRACTOR YARD
-----------------------------------------------------------------------------------------------------------------------------------------------------------------------	-------------------------------------------------------------------

ID Code (A=Service Ready, B=Not Service Ready):	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
--------------------------------------------------------	-----------------------------------------------	--------------------------------------------

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	134.868	4.956	-	-	-	-	-	-	-	-	-	139.824
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	134.868	4.956	-	-	-	-	-	-	-	-	-	139.824
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	134.868	4.956	-	-	-	-	-	-	-	-	-	139.824

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

This program is reported in accordance with Title 10, United States Code, Section 119(a)(1) in the Special Access Program Annual Report to Congress

Secondary Distribution	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
Army	Quantity	-	-	-	-	-	-	-	-
	Total Obligation Authority	4.956	-	-	-	-	-	-	-
Total: Secondary Distribution	Quantity	-	-	-	-	-	-	-	-
	Total Obligation Authority	4.956	-	-	-	-	-	-	-

Justification:

This program is reported in accordance with Title 10, United States Code, Section 119(a)(1) in the Special Access Program Annual Report to Congress.

There is no FY2021 funding request for this program.

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 2035A: Other Procurement, Army / BA 04: Spare and Repair Parts / BSA 20: OPA2 **P-1 Line Item Number / Title:** 0200BS9100 / INITIAL SPARES - C&E

ID Code (A=Service Ready, B=Not Service Ready): **Program Elements for Code B Items:** N/A **Other Related Program Elements:** N/A

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	214.453	9.817	9.757	9.950	-	9.950	10.146	10.259	10.434	10.550	Continuing	Continuing
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	214.453	9.817	9.757	9.950	-	9.950	10.146	10.259	10.434	10.550	Continuing	Continuing
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	214.453	9.817	9.757	9.950	-	9.950	10.146	10.259	10.434	10.550	Continuing	Continuing

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

Program provides for procurement of spares to support initial fielding of new or modified end items. Spares are broken out as follows:

BS9716 / Non-PEO Spares: Procures Depot Level Repairable (DLR) secondary items from the Supply Management, Army activity of the Army Working Capital Fund. To provide initial support, funds are normally required in the same year that end items are fielded.

BS9721 / Defense SATCOM Sys Spares (SPACE): Spares support six projects under Defense Enterprise Wideband SATCOM Systems (DEWSS) Program. Spares support the modernization and upgrade to the Modernization of Enterprise Terminals (MET) systems, Enterprise Wideband Satellite Payload Control Systems, and Digital Communications Satellite Subsystems. The projects currently supported are as follows: Radio Frequency Modulated Orderwire (RFMOW), Wideband Remote Monitoring Sensor (WRMS), Modernization of Enterprise Terminals (MET), Wideband Operation Management System (WSOMS), Common Network Planning System (CNPS), and Wideband Training and Certification System (WTCS).

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025
Army	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	9.817	9.757	9.950	-	9.950	10.146	10.259	10.434	10.550
Total: Secondary Distribution	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	9.817	9.757	9.950	-	9.950	10.146	10.259	10.434	10.550

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2021 Army **Date:** February 2020

Appropriation / Budget Activity / Budget Sub Activity: 2035A: Other Procurement, Army / BA 04: Spare and Repair Parts / BSA 20: OPA2 **P-1 Line Item Number / Title:** 0200BS9100 / INITIAL SPARES - C&E

ID Code (A=Service Ready, B=Not Service Ready): **Program Elements for Code B Items:** N/A **Other Related Program Elements:** N/A

Line Item MDAP/MAIS Code: N/A

Exhibits Schedule					Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-5	BS9716 / NON PEO-SPARES		A		179 / 58.898	736 / 3.131	300 / 3.857	- / 3.896	- / -	- / 3.896
P-5	BS9721 / DEFENSE SATCOM SYS SPARES (SPACE)				- / 155.555	- / 6.686	- / 5.900	- / 6.054	- / -	- / 6.054
P-40	Total Gross/Weapon System Cost				- / 214.453	- / 9.817	- / 9.757	- / 9.950	- / -	- / 9.950

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

Justification:
 FY 2021 Base procurement funding in the amount of \$9.950 million procures Depot Level Repairable (DLR) secondary items from the Supply Management, Army activity of the Army Working Capital Fund.
 BS9716 / Non-PEO Spares: FY 2021 Base procurement dollars in the amount of \$3.896 million procures Depot Level Repairable (DLR) secondary items from the Supply Management, Army activity of the Army Working Capital Fund. To provide initial support, funds are normally required in the same year that end items are fielded.
 BS9721 / Defense SATCOM Sys Spares (SPACE): FY 2021 Base procurement dollars in the amount of \$6.054 million procures spares for Modernization of Enterprise Terminals (MET) systems, Enterprise Wideband Satellite Payload Control Systems, and Digital Communications Satellite Subsystems.

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 04 / 20		P-1 Line Item Number / Title: 0200BS9100 / INITIAL SPARES - C&E
		Item Number / Title [DODIC]: BS9716 / NON PEO-SPARES

ID Code (A=Service Ready, B=Not Service Ready) : A	MDAP/MAIS Code:
-----------------------------------------------------------	------------------------

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Procurement Quantity (<i>Units in Each</i>)	179	736	300	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	58.898	3.131	3.857	3.896	-	3.896
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	58.898	3.131	3.857	3.896	-	3.896
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	58.898	3.131	3.857	3.896	-	3.896

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Thousands</i>)	329.039	4.254	12.857	-	-	-

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
Hardware Cost																		
Recurring Cost																		
INE Procurement	7.785	144	1.121	13.850	113	1.565	16.009	226	3.618	18.854	185	3.488	-	-	-	18.854	185	3.488
SV Procurement	3.000	80	0.240	3.656	32	0.117	2.988	80	0.239	-	-	-	-	-	-	-	-	-
<i>Subtotal: Recurring Cost</i>	-	-	1.361	-	-	1.682	-	-	3.857	-	-	3.488	-	-	-	-	-	3.488
<i>Subtotal: Hardware Cost</i>	-	-	1.361	-	-	1.682	-	-	3.857	-	-	3.488	-	-	-	-	-	3.488
Support - Initial Spares and Repair Parts Cost																		
Initial Spares and Repair Parts	-	-	57.537	-	-	1.449	-	-	-	-	-	0.408	-	-	-	-	-	0.408
<i>Subtotal: Support - Initial Spares and Repair Parts Cost</i>	-	-	57.537	-	-	1.449	-	-	-	-	-	0.408	-	-	-	-	-	0.408
Gross/Weapon System Cost	329.039	179	58.898	4.254	736	3.131	12.857	300	3.857	-	-	3.896	-	-	-	-	-	3.896

Secondary Distribution	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Army					
Quantity	736	300	-	-	-
Total Obligation Authority	3.131	3.857	3.896	-	3.896
Total: Secondary Distribution	736	300	-	-	-
Total Obligation Authority	3.131	3.857	3.896	-	3.896

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 04 / 20		P-1 Line Item Number / Title: 0200BS9100 / INITIAL SPARES - C&E
		Item Number / Title [DODIC]: BS9721 / DEFENSE SATCOM SYS SPARES (SPACE)

ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:
---------------------------------------------------------	------------------------

Resource Summary	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Procurement Quantity (Units in Each)	-	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	155.555	6.686	5.900	6.054	-	6.054
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	155.555	6.686	5.900	6.054	-	6.054
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	155.555	6.686	5.900	6.054	-	6.054

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (\$ in Millions)	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Thousands)	-	-	-	-	-	-

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
Flyaway Cost																		
Recurring Cost																		
Radio Frequency Modulated Orderwire (RFMOW)	-	-	45.298	-	-	0.072	-	-	0.032	-	-	0.050	-	-	-	-	-	0.050
Wideband Remote Monitoring Sensor (WRMS)	-	-	42.372	-	-	0.047	-	-	0.400	-	-	0.250	-	-	-	-	-	0.250
Modernization of Enterprise Terminals (MET)	-	-	63.946	-	-	4.023	-	-	4.086	-	-	3.782	-	-	-	-	-	3.782
Wideband Operational Mgmt System (WSOMS)	-	-	3.939	-	-	0.018	-	-	1.000	-	-	0.300	-	-	-	-	-	0.300
Replacement Patch Test Facility (RPTF)	-	-	-	-	-	0.032	-	-	-	-	-	0.075	-	-	-	-	-	0.075
Replacement Radio Frequency Interconnecting Subsystem (RRFIS)	-	-	-	-	-	0.363	-	-	-	-	-	-	-	-	-	-	-	-
Global Terrestrial Critical Control Circuit System (GTC3S)	-	-	-	-	-	0.506	-	-	-	-	-	-	-	-	-	-	-	-
Remote Monitoring and Control Equipment (RMCE)	-	-	-	-	-	0.402	-	-	-	-	-	-	-	-	-	-	-	-

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2021 Army		Date: February 2020
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 04 / 20	P-1 Line Item Number / Title: 0200BS9100 / INITIAL SPARES - C&E	Item Number / Title [DODIC]: BS9721 / DEFENSE SATCOM SYS SPARES (SPACE)

ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:
---------------------------------------------------------	------------------------

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2019			FY 2020			FY 2021 Base			FY 2021 OCO			FY 2021 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
Joint SATCOM Engineering Center (JSEC)	-	-	-	-	-	0.082	-	-	-	-	-	-	-	-	-	-	-	-
Joint Management and Operations System (JMOS)	-	-	-	-	-	0.292	-	-	-	-	-	-	-	-	-	-	-	-
Global Satellite Configuration Control Element (GSCCE)	-	-	-	-	-	0.232	-	-	-	-	-	-	-	-	-	-	-	-
Common Network Planning System (CNPS)	-	-	-	-	-	0.507	-	-	0.200	-	-	0.380	-	-	-	-	-	0.380
Wideband Training and Certification System (WTCS)	-	-	-	-	-	0.110	-	-	0.182	-	-	0.499	-	-	-	-	-	0.499
Wideband Satellite Trending and Anomaly Resolution System (WSTARS)	-	-	-	-	-	-	-	-	-	-	-	0.418	-	-	-	-	-	0.418
Frequency Digital Multiple Access (FDMA) Modem	-	-	-	-	-	-	-	-	-	-	-	0.300	-	-	-	-	-	0.300
<i>Subtotal: Recurring Cost</i>	-	-	155.555	-	-	6.686	-	-	5.900	-	-	6.054	-	-	-	-	-	6.054
<i>Subtotal: Flyaway Cost</i>	-	-	155.555	-	-	6.686	-	-	5.900	-	-	6.054	-	-	-	-	-	6.054
Gross/Weapon System Cost	-	-	155.555	-	-	6.686	-	-	5.900	-	-	6.054	-	-	-	-	-	6.054

Remarks:
Spares are procured across multiple systems of sub-systems.

Secondary Distribution		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Army	Quantity	-	-	-	-	-
	Total Obligation Authority	6.686	5.900	6.054	-	6.054
Total:	Quantity	-	-	-	-	-
Secondary Distribution	Total Obligation Authority	6.686	5.900	6.054	-	6.054