Department of Defense
Fiscal Year (FY) 2019 Budget Estimates

February 2018

Army

Justification Book of

Other Procurement, Army

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

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PROCUREMENT OF OTHER PROCUREMENT, ARMY

APPROPRIATION LANGUAGE

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, $9,381,576 to remain available for obligation until September 30, 2021.

COST STATEMENT

The following Justification Books were prepared at a cost of $226,413: 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, and Budget Activity 7.

Department of the Army
FY 2019 President's Budget
Exhibit P-1 FY 2019 President's Budget
Total Obligational Authority
(Dollars in Thousands)

23 Jan 2018

Appropriation	FY 2017 (Base + OCO)	FY 2018 PB Request with CR Adj Base	FY 2018 Total PB Requests* with CR Adj Base	FY 2018 PB Request with CR Adj OCO
Other Procurement, Army	7,867,971	6,022,053	6,022,053	1,827,119
Total Department of the Army	7,867,971	6,022,053	6,022,053	1,827,119

P-119PB: FY 2019 President's Budget (Published Version), as of January 23, 2018 at 10:56:41

Department of the Army
FY 2019 President's Budget
Exhibit P-1 FY 2019 President's Budget
Total Obligational Authority
(Dollars in Thousands)

23 Jan 2018

Appropriation	FY 2018 Total PB Requests+ with CR Adj OCO	FY 2018 Emergency Requests** Emergency	FY 2018 Less Enacted Div B P.L.115-96*** MDDE + Ship Repairs	FY 2018 Remaining Req Emergency
Other Procurement, Army	1,827,119			
Total Department of the Army	1,827,119			

Department of the Army
FY 2019 President's Budget
Exhibit P-1 FY 2019 President's Budget
Total Obligational Authority
(Dollars in Thousands)

23 Jan 2018

Appropriation	FY 2018 Total PB Requests* with CR Adj Base + OCO + Emergency**	FY 2018 Less Enacted DIV B P.L.115-96*** MDDE + Ship Repairs	FY 2018 Remaining Req with CR Adj Base + OCO + Emergency
Other Procurement, Army	7,849,172		7,849,172
Total Department of the Army	7,849,172		7,849,172

P-119PB: FY 2019 President's Budget (Published Version), as of January 23, 2018 at 10:56:41

Department of the Army
FY 2019 President's Budget
Exhibit P-1 FY 2019 President's Budget
Total Obligational Authority
(Dollars in Thousands)

23 Jan 2018

Appropriation	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Other Procurement, Army	7,999,529	1,382,047	9,381,576
Total Department of the Army	7,999,529	1,382,047	9,381,576

Department of the Army
FY 2019 President's Budget
Exhibit P-1 FY 2019 President's Budget
Total Obligational Authority
(Dollars in Thousands)

23 Jan 2018

Appropriation: Other Procurement, Army

Budget Activity	FY 2017 (Base + OCO)	FY 2018 PB Request with CR Adj Base	FY 2018 Total PB Requests* with CR Adj Base	FY 2018 PB Request with CR Adj OCO
01. Tactical and Support Vehicles	1,905,158	1,245,581	1,245,581	146,657
02. Communications and Electronics Equipment	4,255,899	3,826,384	3,826,384	200,932
03. Other Support Equipment	1,680,264	1,359,097	1,359,097	57,986
04. Spare and Repair Parts	26,650	38,269	38,269	
20. Undistributed		-447,278	-447,278	1,421,544
Total Other Procurement, Army	7,867,971	6,022,053	6,022,053	1,827,119

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Department of the Army
FY 2019 President's Budget
Exhibit P-1 FY 2019 President's Budget
Total Obligational Authority
(Dollars in Thousands)

23 Jan 2018

Appropriation: Other Procurement, Army

Budget Activity	FY 2018 Total PB Requests+ with CR Adj OCO	FY 2018 Emergency Requests** Emergency	FY 2018 Less Enacted Div B P.L.115-96*** MDDE + Ship Repairs	FY 2018 Remaining Req Emergency
01. Tactical and Support Vehicles	146,657			
02. Communications and Electronics Equipment	200,932			
03. Other Support Equipment	57,986			
04. Spare and Repair Parts				
20. Undistributed	1,421,544			
Total Other Procurement, Army	1,827,119			

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Department of the Army
FY 2019 President's Budget
Exhibit P-1 FY 2019 President's Budget
Total Obligational Authority
(Dollars in Thousands)

23 Jan 2018

Appropriation: Other Procurement, Army

Budget Activity	FY 2018 Total PB Requests* with CR Adj Base + OCO + Emergency**	FY 2018 Less Enacted DIV B P.L.115-96*** MDDE + Ship Repairs	FY 2018 Remaining Req with CR Adj Base + OCO + Emergency
01. Tactical and Support Vehicles	1,392,238		1,392,238
02. Communications and Electronics Equipment	4,027,316		4,027,316
03. Other Support Equipment	1,417,083		1,417,083
04. Spare and Repair Parts	38,269		38,269
20. Undistributed	974,266		974,266
Total Other Procurement, Army	7,849,172		7,849,172

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Department of the Army
FY 2019 President's Budget
Exhibit P-1 FY 2019 President's Budget
Total Obligational Authority
(Dollars in Thousands)

23 Jan 2018

Appropriation: Other Procurement, Army

Budget Activity	FY 2019 Base	FY 2019 OCO	FY 2019 Total
01. Tactical and Support Vehicles	1,908,441	387,229	2,295,670
02. Communications and Electronics Equipment	4,155,165	748,240	4,903,405
03. Other Support Equipment	1,926,106	246,578	2,172,684
04. Spare and Repair Parts	9,817		9,817
20. Undistributed			
Total Other Procurement, Army	7,999,529	1,382,047	9,381,576

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Department of the Army
FY 2019 President's Budget
Exhibit P-1 FY 2019 President's Budget
Total Obligational Authority
(Dollars in Thousands)

23 Jan 2018

Appropriation: 2035A Other Procurement, Army

Line No	Item Nomenclature	Ident Code	FY 2017 (Base + OCO) Quantity	FY 2017 (Base + OCO) Cost	FY 2018 PB Request with CR Adj Base Quantity	FY 2018 PB Request with CR Adj Base Cost	FY 2018 Total PB Requests* with CR Adj Base Quantity	FY 2018 Total PB Requests* with CR Adj Base Cost	FY 2018 PB Request with CR Adj OCO Quantity	FY 2018 PB Request with CR Adj OCO Cost	Sec
Budget Activity 01: Tactical and Support Vehicles											
Tactical Vehicles											
1	Tactical Trailers/Dolly Sets	A		2,578		9,716		9,716			U
2	Semitrailers, Flatbed:	A		26,386		14,151		14,151			U
3	Ambulance, 4 LITTER, 5/4 TON, 4x4			50,000		53,000		53,000			U
4	Ground Mobility Vehicles (GMV)	A		4,907		40,935		40,935			U
5	ARNG HMMWV Modernization Program	A		160,000							U
6	Joint Light Tactical Vehicle	A	1591	587,514	2110	804,440	2110	804,440			U
7	Truck, Dump, 20t (CCE)			3,927		967		967			U
8	Family of Medium Tactical Veh (FMTV)		1675	352,769		78,650		78,650			U
9	Firetrucks & Associated Firefighting Equip			7,460		19,404		19,404			U
10	Family of Heavy Tactical Vehicles (FHTV)		423	39,716		81,656		81,656		25,874	U
11	Pls Esp	A		118,214		7,129		7,129			U
12	Hvy Expanded Mobile Tactical Truck Ext Serv			203,766						38,628	U
13	Tactical Wheeled Vehicle Protection Kits	A		145,705		43,040		43,040			U
14	Modification of In Svc Equip			189,456		83,940		83,940		64,647	U
15	Mine-Resistant Ambush-Protected (MRAP) Mods	A		10,611						17,508	U
Non-Tactical Vehicles											
16	Heavy Armored Vehicle			394		269		269			U

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Department of the Army
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(Dollars in Thousands)

23 Jan 2018

Appropriation: 2035A Other Procurement, Army

Line No	Item Nomenclature	Ident Code	FY 2018 Total PB Requests+ with CR Adj OCO Quantity	FY 2018 Total PB Requests+ with CR Adj OCO Cost	FY 2018 Emergency Requests** Emergency Quantity	FY 2018 Emergency Requests** Emergency Cost	FY 2018 Less Enacted Div B P.L.115-96*** MDDE + Ship Repairs Quantity	FY 2018 Less Enacted Div B P.L.115-96*** MDDE + Ship Repairs Cost	FY 2018 Remaining Req Emergency Quantity	FY 2018 Remaining Req Emergency Cost	Sec
Budget Activity 01: Tactical and Support Vehicles											
	Tactical Vehicles										
1	Tactical Trailers/Dolly Sets	A									U
2	Semitrailers, Flatbed:	A									U
3	Ambulance, 4 LITTER, 5/4 TON, 4x4										U
4	Ground Mobility Vehicles (GMV)	A									U
5	ARNG HMMWV Modernization Program	A									U
6	Joint Light Tactical Vehicle	A									U
7	Truck, Dump, 20t (CCE)										U
8	Family of Medium Tactical Veh (FMTV)										U
9	Firetrucks & Associated Firefighting Equip										U
10	Family of Heavy Tactical Vehicles (FHTV)			25,874							U
11	Pls Esp	A									U
12	Hvy Expanded Mobile Tactical Truck Ext Serv			38,628							U
13	Tactical Wheeled Vehicle Protection Kits	A									U
14	Modification of In Svc Equip			64,647							U
15	Mine-Resistant Ambush-Protected (MRAP) Mods	A		17,508							U
	Non-Tactical Vehicles										
16	Heavy Armored Vehicle										U

Department of the Army
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Total Obligational Authority
(Dollars in Thousands)

23 Jan 2018

Appropriation: 2035A Other Procurement, Army

Line No	Item Nomenclature	Ident Code	FY 2018 Total PB Requests* with CR Adj Base + OCO + Emergency** Quantity	FY 2018 Total PB Requests* with CR Adj Base + OCO + Emergency** Cost	FY 2018 Less Enacted DIV B P.L.115-96*** MDDE + Ship Repairs Quantity	FY 2018 Less Enacted DIV B P.L.115-96*** MDDE + Ship Repairs Cost	FY 2018 Remaining Req with CR Adj Base + OCO + Emergency Quantity	FY 2018 Remaining Req with CR Adj Base + OCO + Emergency Cost	Sec
Budget Activity 01: Tactical and Support Vehicles									
Tactical Vehicles									
1	Tactical Trailers/Dolly Sets	A		9,716				9,716	U
2	Semitrailers, Flatbed:	A		14,151				14,151	U
3	Ambulance, 4 LITTER, 5/4 TON, 4x4			53,000				53,000	U
4	Ground Mobility Vehicles (GMV)	A		40,935				40,935	U
5	ARNG HMMWV Modernization Program	A							U
6	Joint Light Tactical Vehicle	A	2110	804,440			2110	804,440	U
7	Truck, Dump, 20t (CCE)			967				967	U
8	Family of Medium Tactical Veh (FMTV)			78,650				78,650	U
9	Firetrucks & Associated Firefighting Equip			19,404				19,404	U
10	Family of Heavy Tactical Vehicles (FHTV)			107,530				107,530	U
11	Pls Esp	A		7,129				7,129	U
12	Hvy Expanded Mobile Tactical Truck Ext Serv			38,628				38,628	U
13	Tactical Wheeled Vehicle Protection Kits	A		43,040				43,040	U
14	Modification of In Svc Equip			148,587				148,587	U
15	Mine-Resistant Ambush-Protected (MRAP) Mods	A		17,508				17,508	U
Non-Tactical Vehicles									
16	Heavy Armored Vehicle			269				269	U

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Department of the Army
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Total Obligational Authority
(Dollars in Thousands)

23 Jan 2018

Appropriation: 2035A Other Procurement, Army

Line No	Item Nomenclature	Ident Code	FY 2019 Base Quantity	FY 2019 Base Cost	FY 2019 OCO Quantity	FY 2019 OCO Cost	FY 2019 Total Quantity	FY 2019 Total Cost	Sec
Budget Activity 01: Tactical and Support Vehicles									
	Tactical Vehicles								
1	Tactical Trailers/Dolly Sets	A		16,512				16,512	U
2	Semitrailers, Flatbed:	A		16,951		8,000		24,951	U
3	Ambulance, 4 LITTER, 5/4 TON, 4x4			50,123		20,770		70,893	U
4	Ground Mobility Vehicles (GMV)	A		46,988				46,988	U
5	ARNG HMMWV Modernization Program	A							U
6	Joint Light Tactical Vehicle	A		1,319,436				1,319,436	U
7	Truck, Dump, 20t (CCE)			6,480				6,480	U
8	Family of Medium Tactical Veh (FMTV)			132,882				132,882	U
9	Firetrucks & Associated Firefighting Equip			14,842				14,842	U
10	Family of Heavy Tactical Vehicles (FHTV)		596	138,105	596	115,400	596	253,505	U
11	Pls Esp	A							U
12	Hvy Expanded Mobile Tactical Truck Ext Serv			31,892		6,682		38,574	U
13	Tactical Wheeled Vehicle Protection Kits	A		38,128		50,000		88,128	U
14	Modification of In Svc Equip			78,507		186,377		264,884	U
15	Mine-Resistant Ambush-Protected (MRAP) Mods	A							U
	Non-Tactical Vehicles								
16	Heavy Armored Vehicle			790				790	U

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Department of the Army
FY 2019 President's Budget
Exhibit P-1 FY 2019 President's Budget
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(Dollars in Thousands)

23 Jan 2018

Appropriation: 2035A Other Procurement, Army

Line No	Item Nomenclature	Ident Code	FY 2017 (Base + OCO) Quantity	FY 2017 (Base + OCO) Cost	FY 2018 PB Request with CR Adj Base Quantity	FY 2018 PB Request with CR Adj Base Cost	FY 2018 Total PB Requests* with CR Adj Base Quantity	FY 2018 Total PB Requests* with CR Adj Base Cost	FY 2018 PB Request with CR Adj OCO Quantity	FY 2018 PB Request with CR Adj OCO Cost	Sec
17	Passenger Carrying Vehicles					1,320		1,320			U
18	Nontactical Vehicles, Other	A		1,755		6,964		6,964			U
Total Tactical and Support Vehicles				1,905,158		1,245,581		1,245,581		146,657	
Budget Activity 02: Communications and Electronics Equipment											
	Comm - Joint Communications										
19	Win-T - Ground Forces Tactical Network	A		551,170		420,492		420,492			U
20	Signal Modernization Program	A		58,250		92,718		92,718		4,900	U
21	Tactical Network Technology Mod In Svc	A				150,497		150,497			U
22	SITUATION INFORMATION TRANSPORT	A									U
23	Joint Incident Site Communications Capability	A		5,749		6,065		6,065			U
24	JCSE Equipment (USREDCOM)			5,068		5,051		5,051			U
	Comm - Satellite Communications										
25	Spectrum METSAT	A		1,626							U
26	Spectrum Portal	A		55							U
27	Defense Enterprise Wideband Satcom Systems			143,805		161,383		161,383			U
28	Transportable Tactical Command Communications	A		36,580		62,600		62,600			U
29	SHF Term			26,381		11,622		11,622			U
30	Smart-T (SPACE)			8,769		6,799		6,799			U
31	Global Brdcst Svc - GBS					7,065		7,065			U

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(Dollars in Thousands)

23 Jan 2018

Appropriation: 2035A Other Procurement, Army

Line No	Item Nomenclature	Ident Code	FY 2018 Total PB Requests+ with CR Adj OCO Quantity	FY 2018 Total PB Requests+ with CR Adj OCO Cost	FY 2018 Emergency Requests** Emergency Quantity	FY 2018 Emergency Requests** Emergency Cost	FY 2018 Less Enacted Div B P.L.115-96*** MDDE + Ship Repairs Quantity	FY 2018 Less Enacted Div B P.L.115-96*** MDDE + Ship Repairs Cost	FY 2018 Remaining Req Emergency Quantity	FY 2018 Remaining Req Emergency Cost	Sec
17	Passenger Carrying Vehicles										U
18	Nontactical Vehicles, Other	A									U
Total Tactical and Support Vehicles				146,657							
Budget Activity 02: Communications and Electronics Equipment											
	Comm - Joint Communications										
19	Win-T - Ground Forces Tactical Network	A									U
20	Signal Modernization Program	A		4,900							U
21	Tactical Network Technology Mod In Svc	A									U
22	SITUATION INFORMATION TRANSPORT	A									U
23	Joint Incident Site Communications Capability	A									U
24	JCSE Equipment (USREDCOM)										U
	Comm - Satellite Communications										
25	Spectrum METSAT	A									U
26	Spectrum Portal	A									U
27	Defense Enterprise Wideband Satcom Systems										U
28	Transportable Tactical Command Communications	A									U
29	SHF Term										U
30	Smart-T (SPACE)										U
31	Global Brdcst Svc - GBS										U

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Department of the Army
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(Dollars in Thousands)

23 Jan 2018

Appropriation: 2035A Other Procurement, Army

Line No	Item Nomenclature	Ident Code	FY 2018 Total PB Requests* with CR Adj Base + OCO + Emergency** Quantity	FY 2018 Total PB Requests* with CR Adj Base + OCO + Emergency** Cost	FY 2018 Less Enacted DIV B P.L.115-96*** MDDE + Ship Repairs Quantity	FY 2018 Less Enacted DIV B P.L.115-96*** MDDE + Ship Repairs Cost	FY 2018 Remaining Req with CR Adj Base + OCO + Emergency Quantity	FY 2018 Remaining Req with CR Adj Base + OCO + Emergency Cost	Sec
17	Passenger Carrying Vehicles			1,320				1,320	U
18	Nontactical Vehicles, Other	A		6,964				6,964	U
Total Tactical and Support Vehicles				1,392,238				1,392,238	
Budget Activity 02: Communications and Electronics Equipment									
	Comm - Joint Communications								
19	Win-T - Ground Forces Tactical Network	A		420,492				420,492	U
20	Signal Modernization Program	A		97,618				97,618	U
21	Tactical Network Technology Mod In Svc	A		150,497				150,497	U
22	SITUATION INFORMATION TRANSPORT	A							U
23	Joint Incident Site Communications Capability	A		6,065				6,065	U
24	JCSE Equipment (USREDCOM)			5,051				5,051	U
	Comm - Satellite Communications								
25	Spectrum METSAT	A							U
26	Spectrum Portal	A							U
27	Defense Enterprise Wideband Satcom Systems			161,383				161,383	U
28	Transportable Tactical Command Communications	A		62,600				62,600	U
29	SHF Term			11,622				11,622	U
30	Smart-T (SPACE)			6,799				6,799	U
31	Global Brdcst Svc - GBS			7,065				7,065	U

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Department of the Army
FY 2019 President's Budget
Exhibit P-1 FY 2019 President's Budget
Total Obligational Authority
(Dollars in Thousands)

23 Jan 2018

Appropriation: 2035A Other Procurement, Army

Line No	Item Nomenclature	Ident Code	FY 2019 Base Quantity	FY 2019 Base Cost	FY 2019 OCO Quantity	FY 2019 OCO Cost	FY 2019 Total Quantity	FY 2019 Total Cost	Sec
17	Passenger Carrying Vehicles			1,390				1,390	U
18	Nontactical Vehicles, Other	A		15,415				15,415	U
Total Tactical and Support Vehicles				1,908,441		387,229		2,295,670	
Budget Activity 02: Communications and Electronics Equipment									
	Comm - Joint Communications								
19	Win-T - Ground Forces Tactical Network	A							U
20	Signal Modernization Program	A		150,777				150,777	U
21	Tactical Network Technology Mod In Svc	A		469,117				469,117	U
22	SITUATION INFORMATION TRANSPORT	A		62,727				62,727	U
23	Joint Incident Site Communications Capability	A		13,895				13,895	U
24	JCSE Equipment (USREDCOM)			4,866				4,866	U
	Comm - Satellite Communications								
25	Spectrum METSAT	A							U
26	Spectrum Portal	A							U
27	Defense Enterprise Wideband Satcom Systems			108,133				108,133	U
28	Transportable Tactical Command Communications	A		56,737		7,100		63,837	U
29	SHF Term			13,100				13,100	U
30	Smart-T (SPACE)			9,160				9,160	U
31	Global Brdcst Svc - GBS			25,647				25,647	U

Department of the Army
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23 Jan 2018

Appropriation: 2035A Other Procurement, Army

Line No	Item Nomenclature	Ident Code	FY 2017 (Base + OCO) Quantity	FY 2017 (Base + OCO) Cost	FY 2018 PB Request with CR Adj Base Quantity	FY 2018 PB Request with CR Adj Base Cost	FY 2018 Total PB Requests* with CR Adj Base Quantity	FY 2018 Total PB Requests* with CR Adj Base Cost	FY 2018 PB Request with CR Adj OCO Quantity	FY 2018 PB Request with CR Adj OCO Cost	Sec
32	Enroute Mission Command (EMC)	A				21,667		21,667			U
33	Spectrum Microwave			2,299							U
	Comm - Combat Support Comm										
34	Mod-In-Service Profiler	A				70		70			U
	Comm - C3 System										
35	Army Global Cmd & Control Sys (AGCCS)	A		2,530		2,658		2,658			U
36	COE Tactical Server Infrastructure (TSI)	A									U
	Comm - Combat Communications										
37	Joint Tactical Radio System	A									U
38	Handheld Manpack Small Form Fit (HMS)	A		268,122		355,351		355,351			U
39	Mid-Tier Networking Vehicular Radio (MNVR)	A		30,020		25,100		25,100			U
40	Radio Terminal Set, Mids Lvt(2)	A		12,326		11,160		11,160			U
41	Tractor Desk			2,034		2,041		2,041			U
42	Tractor Ride			2,334		5,534		5,534		1,000	U
43	Spider Apla Remote Control Unit	A		1,428		996		996			U
44	Spider Family of Networked Munitions Incr	A		8,796		4,500		4,500			U
45	Tactical Communications and Protective System	A		3,607		4,411		4,411			U
46	Unified Command Suite	A		14,295		15,275		15,275			U
47	COTS Communications Equipment	A									U

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Line No	Item Nomenclature	Ident Code	FY 2018 Total PB Requests+ with CR Adj OCO Quantity	FY 2018 Total PB Requests+ with CR Adj OCO Cost	FY 2018 Emergency Requests** Emergency Quantity	FY 2018 Emergency Requests** Emergency Cost	FY 2018 Less Enacted Div B P.L.115-96*** MDDE + Ship Repairs Quantity	FY 2018 Less Enacted Div B P.L.115-96*** MDDE + Ship Repairs Cost	FY 2018 Remaining Req Emergency Quantity	FY 2018 Remaining Req Emergency Cost	Sec
32	Enroute Mission Command (EMC)	A									U
33	Spectrum Microwave										U
	Comm - Combat Support Comm										
34	Mod-In-Service Profiler	A									U
	Comm - C3 System										
35	Army Global Cmd & Control Sys (AGCCS)	A									U
36	COE Tactical Server Infrastructure (TSI)	A									U
	Comm - Combat Communications										
37	Joint Tactical Radio System	A									U
38	Handheld Manpack Small Form Fit (HMS)	A									U
39	Mid-Tier Networking Vehicular Radio (MNVR)	A									U
40	Radio Terminal Set, Mids Lvt(2)	A									U
41	Tractor Desk										U
42	Tractor Ride			1,000							U
43	Spider Apla Remote Control Unit	A									U
44	Spider Family of Networked Munitions Incr	A									U
45	Tactical Communications and Protective System	A									U
46	Unified Command Suite	A									U
47	COTS Communications Equipment	A									U

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Department of the Army
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Line No	Item Nomenclature	Ident Code	FY 2018 Total PB Requests* with CR Adj Base + OCO + Emergency** Quantity	FY 2018 Total PB Requests* with CR Adj Base + OCO + Emergency** Cost	FY 2018 Less Enacted DIV B P.L.115-96*** MDDE + Ship Repairs Quantity	FY 2018 Less Enacted DIV B P.L.115-96*** MDDE + Ship Repairs Cost	FY 2018 Remaining Req with CR Adj Base + OCO + Emergency Quantity	FY 2018 Remaining Req with CR Adj Base + OCO + Emergency Cost	Sec
32	Enroute Mission Command (EMC)	A		21,667				21,667	U
33	Spectrum Microwave								U
	Comm - Combat Support Comm								
34	Mod-In-Service Profiler	A		70				70	U
	Comm - C3 System								
35	Army Global Cmd & Control Sys (AGCCS)	A		2,658				2,658	U
36	COE Tactical Server Infrastructure (TSI)	A							U
	Comm - Combat Communications								
37	Joint Tactical Radio System	A							U
38	Handheld Manpack Small Form Fit (HMS)	A		355,351				355,351	U
39	Mid-Tier Networking Vehicular Radio (MNVR)	A		25,100				25,100	U
40	Radio Terminal Set, Mids Lvt(2)	A		11,160				11,160	U
41	Tractor Desk			2,041				2,041	U
42	Tractor Ride			6,534				6,534	U
43	Spider Apla Remote Control Unit	A		996				996	U
44	Spider Family of Networked Munitions Incr	A		4,500				4,500	U
45	Tactical Communications and Protective System	A		4,411				4,411	U
46	Unified Command Suite	A		15,275				15,275	U
47	COTS Communications Equipment	A							U

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Line No	Item Nomenclature	Ident Code	FY 2019 Base Quantity	FY 2019 Base Cost	FY 2019 OCO Quantity	FY 2019 OCO Cost	FY 2019 Total Quantity	FY 2019 Total Cost	Sec
32	Enroute Mission Command (EMC)	A		37,401				37,401	U
33	Spectrum Microwave								U
	Comm - Combat Support Comm								
34	Mod-In-Service Profiler	A							U
	Comm - C3 System								
35	Army Global Cmd & Control Sys (AGCCS)	A							U
36	COE Tactical Server Infrastructure (TSI)	A		20,500				20,500	U
	Comm - Combat Communications								
37	Joint Tactical Radio System	A				1,560		1,560	U
38	Handheld Manpack Small Form Fit (HMS)	A		351,565				351,565	U
39	Mid-Tier Networking Vehicular Radio (MNVR)	A							U
40	Radio Terminal Set, Mids Lvt(2)	A		4,641				4,641	U
41	Tractor Desk			2,187				2,187	U
42	Tractor Ride			9,411		13,190		22,601	U
43	Spider Apla Remote Control Unit	A							U
44	Spider Family of Networked Munitions Incr	A		17,515				17,515	U
45	Tactical Communications and Protective System	A		819		9,549		10,368	U
46	Unified Command Suite	A		17,807				17,807	U
47	COTS Communications Equipment	A		191,835		22,000		213,835	U

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48	Family of Med Comm for Combat Casualty Care	A		19,893		15,964		15,964			U
	Comm - Intelligence Comm										
50	CI Automation Architecture (MIP)	A		11,438		9,560		9,560			U
51	Defense Military Deception Initiative	A				4,030		4,030			U
52	Army CA/MISO GPF Equipment	A		5,494							U
	Information Security										
53	Family of Biometrics	A		2,978							U
54	Information System Security Program-ISSP	A									U
55	Communications Security (COMSEC)	A		133,284		107,804		107,804			U
56	Defensive CYBER Operations	A		19,329		53,436		53,436			U
57	Insider Threat Program - Unit Activity Monito	A				690		690			U
58	Persistent Cyber Training Environment	A				4,000		4,000			U
	Comm - Long Haul Communications										
59	Base Support Communications			32,852		43,751		43,751			U
	Comm - Base Communications										
60	Information Systems			114,555		118,101		118,101			U
61	Emergency Management Modernization Program	A		4,286		4,490		4,490			U
62	Home Station Mission Command Centers (HSMCC)	A				20,050		20,050			U
63	Installation Info Infrastructure Mod Program	A		147,304		186,251		186,251		2,500	U

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48	Family of Med Comm for Combat Casualty Care	A									U
	Comm - Intelligence Comm										
50	CI Automation Architecture (MIP)	A									U
51	Defense Military Deception Initiative	A									U
52	Army CA/MISO GPF Equipment	A									U
	Information Security										
53	Family of Biometrics	A									U
54	Information System Security Program-ISSP	A									U
55	Communications Security (COMSEC)	A									U
56	Defensive CYBER Operations	A									U
57	Insider Threat Program - Unit Activity Monito	A									U
58	Persistent Cyber Training Environment	A									U
	Comm - Long Haul Communications										
59	Base Support Communications										U
	Comm - Base Communications										
60	Information Systems										U
61	Emergency Management Modernization Program	A									U
62	Home Station Mission Command Centers (HSMCC)	A									U
63	Installation Info Infrastructure Mod Program	A		2,500							U

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Line No	Item Nomenclature	Ident Code	FY 2018 Total PB Requests* with CR Adj Base + OCO + Emergency** Quantity	FY 2018 Total PB Requests* with CR Adj Base + OCO + Emergency** Cost	FY 2018 Less Enacted DIV B P.L.115-96*** MDDE + Ship Repairs Quantity	FY 2018 Less Enacted DIV B P.L.115-96*** MDDE + Ship Repairs Cost	FY 2018 Remaining Req with CR Adj Base + OCO + Emergency Quantity	FY 2018 Remaining Req with CR Adj Base + OCO + Emergency Cost	Sec
48	Family of Med Comm for Combat Casualty Care	A		15,964				15,964	U
	Comm - Intelligence Comm								
50	CI Automation Architecture (MIP)	A		9,560				9,560	U
51	Defense Military Deception Initiative	A		4,030				4,030	U
52	Army CA/MISO GPF Equipment	A							U
	Information Security								
53	Family of Biometrics	A							U
54	Information System Security Program-ISSP	A							U
55	Communications Security (COMSEC)	A		107,804				107,804	U
56	Defensive CYBER Operations	A		53,436				53,436	U
57	Insider Threat Program - Unit Activity Monito	A		690				690	U
58	Persistent Cyber Training Environment	A		4,000				4,000	U
	Comm - Long Haul Communications								
59	Base Support Communications			43,751				43,751	U
	Comm - Base Communications								
60	Information Systems			118,101				118,101	U
61	Emergency Management Modernization Program	A		4,490				4,490	U
62	Home Station Mission Command Centers (HSMCC)	A		20,050				20,050	U
63	Installation Info Infrastructure Mod Program	A		188,751				188,751	U

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Line No	Item Nomenclature	Ident Code	FY 2019 Base Quantity	FY 2019 Base Cost	FY 2019 OCO Quantity	FY 2019 OCO Cost	FY 2019 Total Quantity	FY 2019 Total Cost	Sec
48	Family of Med Comm for Combat Casualty Care	A		25,177				25,177	U
	Comm - Intelligence Comm								
50	CI Automation Architecture (MIP)	A		9,740		9,800		19,540	U
51	Defense Military Deception Initiative	A		2,667				2,667	U
52	Army CA/MISO GPF Equipment	A							U
	Information Security								
53	Family of Biometrics	A		8,319				8,319	U
54	Information System Security Program-ISSP	A		2,000				2,000	U
55	Communications Security (COMSEC)	A		88,337		3		88,340	U
56	Defensive CYBER Operations	A		51,343				51,343	U
57	Insider Threat Program - Unit Activity Monito	A		330				330	U
58	Persistent Cyber Training Environment	A		3,000				3,000	U
	Comm - Long Haul Communications								
59	Base Support Communications			34,434		690		35,124	U
	Comm - Base Communications								
60	Information Systems			95,558		8,750		104,308	U
61	Emergency Management Modernization Program	A		4,736				4,736	U
62	Home Station Mission Command Centers (HSMCC)	A		24,479				24,479	U
63	Installation Info Infrastructure Mod Program	A		216,433		60,337		276,770	U

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	Elect Equip - Tact Int Rel Act (TIARA)										
66	JTT/CIBS-M (MIP)	B		5,337		12,154		12,154			U
67	Drug Interdiction Program (Dip) (TIARA)			35,972							U
68	DCGS-A (MIP)			273,246		274,782		274,782		39,515	U
69	Joint Tactical Ground Station (JTAGS) (MIP)	A		4,417							U
70	Trojan (MIP)	B		29,680		16,052		16,052		21,310	U
71	Mod of In-Svc Equip (Intel Spt) (MIP)			50,405		51,034		51,034		2,300	U
72	CI HUMINT Auto Reprting & Coll(CHARCS)(MIP)			14,891		7,815		7,815		14,460	U
73	Close Access Target Reconnaissance (CATR)			7,970		8,050		8,050			U
74	Machine Foreign Language Translation System-M	A		545		567		567			U
75	Biometric Tactical Collection Devices (MIP)	A		6,804						5,180	U
76	Items Less Than $5.0M (MIP)										U
	Elect Equip - Electronic Warfare (EW)										
77	Lightweight Counter Mortar Radar	A		125,145		20,459		20,459			U
78	EW Planning & Management Tools (EWPMT)	A		3,235		5,805		5,805			U
79	Air Vigilance (AV) (MIP)	A		733		5,348		5,348			U
80	Crew										U
81	Family of Persistent Surveillance Cap. (MIP)	A		34,541						16,935	U
82	Counterintelligence/Security Countermeasures			24,345		469		469		18,874	U

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	Elect Equip - Tact Int Rel Act (TIARA)										
66	JTT/CIBS-M (MIP)	B									U
67	Drug Interdiction Program (Dip) (TIARA)										U
68	DCGS-A (MIP)			39,515							U
69	Joint Tactical Ground Station (JTAGS) (MIP)	A									U
70	Trojan (MIP)	B		21,310							U
71	Mod of In-Svc Equip (Intel Spt) (MIP)			2,300							U
72	CI HUMINT Auto Reprting & Coll(CHARCS)(MIP)			14,460							U
73	Close Access Target Reconnaissance (CATR)										U
74	Machine Foreign Language Translation System-M	A									U
75	Biometric Tactical Collection Devices (MIP)	A		5,180							U
76	Items Less Than $5.0M (MIP)										U
	Elect Equip - Electronic Warfare (EW)										
77	Lightweight Counter Mortar Radar	A									U
78	EW Planning & Management Tools (EWPMT)	A									U
79	Air Vigilance (AV) (MIP)	A									U
80	Crew										U
81	Family of Persistent Surveillance Cap. (MIP)	A		16,935							U
82	Counterintelligence/Security Countermeasures			18,874							U

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	Elect Equip - Tact Int Rel Act (TIARA)								
66	JTT/CIBS-M (MIP)	B		12,154				12,154	U
67	Drug Interdiction Program (Dip) (TIARA)								U
68	DCGS-A (MIP)			314,297				314,297	U
69	Joint Tactical Ground Station (JTAGS) (MIP)	A							U
70	Trojan (MIP)	B		37,362				37,362	U
71	Mod of In-Svc Equip (Intel Spt) (MIP)			53,334				53,334	U
72	CI HUMINT Auto Reprting & Coll(CHARCS)(MIP)			22,275				22,275	U
73	Close Access Target Reconnaissance (CATR)			8,050				8,050	U
74	Machine Foreign Language Translation System-M	A		567				567	U
75	Biometric Tactical Collection Devices (MIP)	A		5,180				5,180	U
76	Items Less Than $5.0M (MIP)								U
	Elect Equip - Electronic Warfare (EW)								
77	Lightweight Counter Mortar Radar	A		20,459				20,459	U
78	EW Planning & Management Tools (EWPMT)	A		5,805				5,805	U
79	Air Vigilance (AV) (MIP)	A		5,348				5,348	U
80	Crew								U
81	Family of Persistent Surveillance Cap. (MIP)	A		16,935				16,935	U
82	Counterintelligence/Security Countermeasures			19,343				19,343	U

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Line No	Item Nomenclature	Ident Code	FY 2019 Base Quantity	FY 2019 Base Cost	FY 2019 OCO Quantity	FY 2019 OCO Cost	FY 2019 Total Quantity	FY 2019 Total Cost	Sec
	Elect Equip - Tact Int Rel Act (TIARA)								
66	JTT/CIBS-M (MIP)	B		10,268				10,268	U
67	Drug Interdiction Program (Dip) (TIARA)								U
68	DCGS-A (MIP)			261,863		37,806		299,669	U
69	Joint Tactical Ground Station (JTAGS) (MIP)	A		5,434				5,434	U
70	Trojan (MIP)	B		20,623		6,926		27,549	U
71	Mod of In-Svc Equip (Intel Spt) (MIP)			45,998		2,011		48,009	U
72	CI HUMINT Auto Reprting & Coll(CHARCS)(MIP)			296				296	U
73	Close Access Target Reconnaissance (CATR)								U
74	Machine Foreign Language Translation System-M	A							U
75	Biometric Tactical Collection Devices (MIP)	A				5,370		5,370	U
76	Items Less Than $5.0M (MIP)			410				410	U
	Elect Equip - Electronic Warfare (EW)								
77	Lightweight Counter Mortar Radar	A		9,165				9,165	U
78	EW Planning & Management Tools (EWPMT)	A		5,875				5,875	U
79	Air Vigilance (AV) (MIP)	A		8,497				8,497	U
80	Crew					42,651		42,651	U
81	Family of Persistent Surveillance Cap. (MIP)	A				20,050		20,050	U
82	Counterintelligence/Security Countermeasures					12,974		12,974	U

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Line No	Item Nomenclature	Ident Code	FY 2017 (Base + OCO) Quantity	FY 2017 (Base + OCO) Cost	FY 2018 PB Request with CR Adj Base Quantity	FY 2018 PB Request with CR Adj Base Cost	FY 2018 Total PB Requests* with CR Adj Base Quantity	FY 2018 Total PB Requests* with CR Adj Base Cost	FY 2018 PB Request with CR Adj OCO Quantity	FY 2018 PB Request with CR Adj OCO Cost	Sec
83	CI Modernization (MIP)	A		176		285		285			U
	Elect Equip - Tactical Surv. (Tac Surv)										
84	Sentinel Mods			40,171		28,491		28,491			U
85	Night Vision Devices	A		152,170		166,493		166,493		377	U
86	Long Range Advanced Scout Surveillance System										U
87	Small Tactical Optical Rifle Mounted MLRF			18,843		13,947		13,947		60	U
88	Radiation Monitoring Systems										U
89	Base Expeditiary Targeting and Surv Sys	A		82,590							U
90	Indirect Fire Protection Family of Systems	A		237,337		21,380		21,380		57,500	U
91	Family of Weapon Sights (FWS)	A		49,536		59,105		59,105			U
92	Artillery Accuracy Equip			4,187		2,129		2,129			U
93	Profiler										U
94	Joint Battle Command - Platform (JBC-P)	A		227,573		282,549		282,549			U
95	Joint Effects Targeting System (JETS)			48,375		48,664		48,664			U
96	Mod of In-Svc Equip (LLDR)	A		28,058		5,198		5,198		3,974	U
97	Computer Ballistics: LHMBC XM32	A		5,924		8,117		8,117			U
98	Mortar Fire Control System			24,903		31,813		31,813		2,947	U
99	Counterfire Radars			297,509		329,057		329,057			U

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83	CI Modernization (MIP)	A									U
	Elect Equip - Tactical Surv. (Tac Surv)										
84	Sentinel Mods										U
85	Night Vision Devices	A		377							U
86	Long Range Advanced Scout Surveillance System										U
87	Small Tactical Optical Rifle Mounted MLRF			60							U
88	Radiation Monitoring Systems										U
89	Base Expeditiary Targeting and Surv Sys	A									U
90	Indirect Fire Protection Family of Systems	A		57,500							U
91	Family of Weapon Sights (FWS)	A									U
92	Artillery Accuracy Equip										U
93	Profiler										U
94	Joint Battle Command - Platform (JBC-P)	A									U
95	Joint Effects Targeting System (JETS)										U
96	Mod of In-Svc Equip (LLDR)	A		3,974							U
97	Computer Ballistics: LHMBC XM32	A									U
98	Mortar Fire Control System			2,947							U
99	Counterfire Radars										U

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83	CI Modernization (MIP)	A		285				285	U
	Elect Equip - Tactical Surv. (Tac Surv)								
84	Sentinel Mods			28,491				28,491	U
85	Night Vision Devices	A		166,870				166,870	U
86	Long Range Advanced Scout Surveillance System								U
87	Small Tactical Optical Rifle Mounted MLRF			14,007				14,007	U
88	Radiation Monitoring Systems								U
89	Base Expeditiary Targeting and Surv Sys	A							U
90	Indirect Fire Protection Family of Systems	A		78,880				78,880	U
91	Family of Weapon Sights (FWS)	A		59,105				59,105	U
92	Artillery Accuracy Equip			2,129				2,129	U
93	Profiler								U
94	Joint Battle Command - Platform (JBC-P)	A		282,549				282,549	U
95	Joint Effects Targeting System (JETS)			48,664				48,664	U
96	Mod of In-Svc Equip (LLDR)	A		9,172				9,172	U
97	Computer Ballistics: LHMBC XM32	A		8,117				8,117	U
98	Mortar Fire Control System			34,760				34,760	U
99	Counterfire Radars			329,057				329,057	U

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Line No	Item Nomenclature	Ident Code	FY 2019 Base Quantity	FY 2019 Base Cost	FY 2019 OCO Quantity	FY 2019 OCO Cost	FY 2019 Total Quantity	FY 2019 Total Cost	Sec
83	CI Modernization (MIP)	A		486				486	U
	Elect Equip - Tactical Surv. (Tac Surv)								
84	Sentinel Mods			79,629				79,629	U
85	Night Vision Devices	A		153,180		463		153,643	U
86	Long Range Advanced Scout Surveillance System					2,861		2,861	U
87	Small Tactical Optical Rifle Mounted MLRF			22,882		60		22,942	U
88	Radiation Monitoring Systems			17,393		11		17,404	U
89	Base Expeditiary Targeting and Surv Sys	A							U
90	Indirect Fire Protection Family of Systems	A		46,740		251,062		297,802	U
91	Family of Weapon Sights (FWS)	A		140,737		525		141,262	U
92	Artillery Accuracy Equip								U
93	Profiler			171				171	U
94	Joint Battle Command - Platform (JBC-P)	A		405,239		26,146		431,385	U
95	Joint Effects Targeting System (JETS)			66,574				66,574	U
96	Mod of In-Svc Equip (LLDR)	A		20,783		4,050		24,833	U
97	Computer Ballistics: LHMBC XM32	A		8,553		960		9,513	U
98	Mortar Fire Control System			21,489		7,660		29,149	U
99	Counterfire Radars			162,121		165,200		327,321	U

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	Elect Equip - Tactical C2 Systems										
100	Army Command Post Integrated Infrastructure (	A									U
101	Fire Support C2 Family	A		8,907		8,700		8,700			U
102	AIR & MSL Defense Planning & Control Sys			126,539		26,635		26,635		9,100	U
103	Life Cycle Software Support (LCSS)			4,718		1,992		1,992			U
104	Network Management Initialization and Service	A		11,063		15,179		15,179			U
105	Maneuver Control System (MCS)	A		151,464		132,572		132,572			U
106	Global Combat Support System-Army (GCSS-A)	A		131,839		37,201		37,201			U
107	Integrated Personnel and Pay System-Army (IPP	A		4,214		16,140		16,140			U
108	Logistics Automation	A		23,821							U
109	Reconnaissance and Surveying Instrument Set	A		16,185		6,093		6,093			U
110	Mod of In-Svc Equipment (ENFIRE)	A		1,565		1,134		1,134			U
	Elect Equip - Automation										
111	Army Training Modernization			17,693		11,575		11,575			U
112	Automated Data Processing Equip			146,480		91,983		91,983			U
113	General Fund Enterprise Business Systems Fam	A		6,416		4,465		4,465			U
114	High Perf Computing Mod Pgm (HPCMP)	A		58,614		66,363		66,363			U
115	Contract Writing System	A		789		1,001		1,001			U
116	Reserve Component Automation Sys (RCAS)			23,828		26,183		26,183			U

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Line No	Item Nomenclature	Ident Code	FY 2018 Total PB Requests+ with CR Adj OCO Quantity	FY 2018 Total PB Requests+ with CR Adj OCO Cost	FY 2018 Emergency Requests** Emergency Quantity	FY 2018 Emergency Requests** Emergency Cost	FY 2018 Less Enacted Div B P.L.115-96*** MDDE + Ship Repairs Quantity	FY 2018 Less Enacted Div B P.L.115-96*** MDDE + Ship Repairs Cost	FY 2018 Remaining Req Emergency Quantity	FY 2018 Remaining Req Emergency Cost	Sec
	Elect Equip - Tactical C2 Systems										
100	Army Command Post Integrated Infrastructure (	A									U
101	Fire Support C2 Family	A									U
102	AIR & MSL Defense Planning & Control Sys			9,100							U
103	Life Cycle Software Support (LCSS)										U
104	Network Management Initialization and Service	A									U
105	Maneuver Control System (MCS)	A									U
106	Global Combat Support System-Army (GCSS-A)	A									U
107	Integrated Personnel and Pay System-Army (IPP	A									U
108	Logistics Automation	A									U
109	Reconnaissance and Surveying Instrument Set	A									U
110	Mod of In-Svc Equipment (ENFIRE)	A									U
	Elect Equip - Automation										
111	Army Training Modernization										U
112	Automated Data Processing Equip										U
113	General Fund Enterprise Business Systems Fam	A									U
114	High Perf Computing Mod Pgm (HPCMP)	A									U
115	Contract Writing System	A									U
116	Reserve Component Automation Sys (RCAS)										U

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	Elect Equip - Tactical C2 Systems								
100	Army Command Post Integrated Infrastructure (	A							U
101	Fire Support C2 Family	A		8,700				8,700	U
102	AIR & MSL Defense Planning & Control Sys			35,735				35,735	U
103	Life Cycle Software Support (LCSS)			1,992				1,992	U
104	Network Management Initialization and Service	A		15,179				15,179	U
105	Maneuver Control System (MCS)	A		132,572				132,572	U
106	Global Combat Support System-Army (GCSS-A)	A		37,201				37,201	U
107	Integrated Personnel and Pay System-Army (IPP	A		16,140				16,140	U
108	Logistics Automation	A							U
109	Reconnaissance and Surveying Instrument Set	A		6,093				6,093	U
110	Mod of In-Svc Equipment (ENFIRE)	A		1,134				1,134	U
	Elect Equip - Automation								
111	Army Training Modernization			11,575				11,575	U
112	Automated Data Processing Equip			91,983				91,983	U
113	General Fund Enterprise Business Systems Fam	A		4,465				4,465	U
114	High Perf Computing Mod Pgm (HPCMP)	A		66,363				66,363	U
115	Contract Writing System	A		1,001				1,001	U
116	Reserve Component Automation Sys (RCAS)			26,183				26,183	U

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Line No	Item Nomenclature	Ident Code	FY 2019 Base Quantity	FY 2019 Base Cost	FY 2019 OCO Quantity	FY 2019 OCO Cost	FY 2019 Total Quantity	FY 2019 Total Cost	Sec
	Elect Equip - Tactical C2 Systems								
100	Army Command Post Integrated Infrastructure (	A		2,855				2,855	U
101	Fire Support C2 Family	A		19,153				19,153	U
102	AIR & MSL Defense Planning & Control Sys			33,837				33,837	U
103	Life Cycle Software Support (LCSS)			5,136				5,136	U
104	Network Management Initialization and Service	A		18,329				18,329	U
105	Maneuver Control System (MCS)	A		38,015				38,015	U
106	Global Combat Support System-Army (GCSS-A)	A		15,164				15,164	U
107	Integrated Personnel and Pay System-Army (IPP	A		29,239				29,239	U
108	Logistics Automation	A							U
109	Reconnaissance and Surveying Instrument Set	A		6,823				6,823	U
110	Mod of In-Svc Equipment (ENFIRE)	A		1,177				1,177	U
	Elect Equip - Automation								
111	Army Training Modernization			12,265				12,265	U
112	Automated Data Processing Equip			201,875		28,475		230,350	U
113	General Fund Enterprise Business Systems Fam	A		10,976				10,976	U
114	High Perf Computing Mod Pgm (HPCMP)	A		66,330				66,330	U
115	Contract Writing System	A		5,927				5,927	U
116	Reserve Component Automation Sys (RCAS)			27,896				27,896	U

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	Elect Equip - Audio Visual Sys (A/V)										
117	Tactical Digital Media	A		1,391		4,441		4,441			U
118	Items Less Than $5M (Surveying Equipment)			2,509		3,414		3,414			U
	Elect Equip - Support										
119	Production Base Support (C-E)			403		499		499			U
120	BCT Emerging Technologies	A		1,750		25,050		25,050			U
999	Classified Programs			4,436		4,819		4,819			U
	Total Communications and Electronics Equipment			4,255,899		3,826,384		3,826,384		200,932	
	Budget Activity 03: Other Support Equipment										
	Chemical Defensive Equipment										
121	Protective Systems	A		2,966		1,613		1,613			U
122	Family of Non-Lethal Equipment (FNLE)	A		9,795		9,696		9,696			U
123	Base Defense Systems (BDS)	A		26,572						3,726	U
124	CBRN Defense	A		47,743		11,110		11,110			U
	Bridging Equipment										
125	Tactical Bridging			37,500		16,610		16,610			U
126	Tactical Bridge, Float-Ribbon			27,297		21,761		21,761			U
127	Common Bridge Transporter (CBT) Recap	A		25,176		21,046		21,046			U

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	Elect Equip - Audio Visual Sys (A/V)										
117	Tactical Digital Media	A									U
118	Items Less Than $5M (Surveying Equipment)										U
	Elect Equip - Support										
119	Production Base Support (C-E)										U
120	BCT Emerging Technologies	A									U
999	Classified Programs										U
	Total Communications and Electronics Equipment			200,932							
	Budget Activity 03: Other Support Equipment										
	Chemical Defensive Equipment										
121	Protective Systems	A									U
122	Family of Non-Lethal Equipment (FNLE)	A									U
123	Base Defense Systems (BDS)	A		3,726							U
124	CBRN Defense	A									U
	Bridging Equipment										
125	Tactical Bridging										U
126	Tactical Bridge, Float-Ribbon										U
127	Common Bridge Transporter (CBT) Recap	A									U

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	Elect Equip - Audio Visual Sys (A/V)								
117	Tactical Digital Media	A		4,441				4,441	U
118	Items Less Than $5M (Surveying Equipment)			3,414				3,414	U
	Elect Equip - Support								
119	Production Base Support (C-E)			499				499	U
120	BCT Emerging Technologies	A		25,050				25,050	U
999	Classified Programs			4,819				4,819	U
	Total Communications and Electronics Equipment			4,027,316				4,027,316	
	Budget Activity 03: Other Support Equipment								
	Chemical Defensive Equipment								
121	Protective Systems	A		1,613				1,613	U
122	Family of Non-Lethal Equipment (FNLE)	A		9,696				9,696	U
123	Base Defense Systems (BDS)	A		3,726				3,726	U
124	CBRN Defense	A		11,110				11,110	U
	Bridging Equipment								
125	Tactical Bridging			16,610				16,610	U
126	Tactical Bridge, Float-Ribbon			21,761				21,761	U
127	Common Bridge Transporter (CBT) Recap	A		21,046				21,046	U

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Line No	Item Nomenclature	Ident Code	FY 2019 Base Quantity	FY 2019 Base Cost	FY 2019 OCO Quantity	FY 2019 OCO Cost	FY 2019 Total Quantity	FY 2019 Total Cost	Sec
	Elect Equip - Audio Visual Sys (A/V)								
117	Tactical Digital Media	A		4,392				4,392	U
118	Items Less Than $5M (Surveying Equipment)			1,970				1,970	U
	Elect Equip - Support								
119	Production Base Support (C-E)			506				506	U
120	BCT Emerging Technologies	A							U
999	Classified Programs			4,501				4,501	U
	Total Communications and Electronics Equipment			4,155,165		748,240		4,903,405	
	Budget Activity 03: Other Support Equipment								
	Chemical Defensive Equipment								
121	Protective Systems	A		2,314		27		2,341	U
122	Family of Non-Lethal Equipment (FNLE)	A		7,478		20,200		27,678	U
123	Base Defense Systems (BDS)	A				39,200		39,200	U
124	CBRN Defense	A		173,954		2,317		176,271	U
	Bridging Equipment								
125	Tactical Bridging			98,229				98,229	U
126	Tactical Bridge, Float-Ribbon			64,438				64,438	U
127	Common Bridge Transporter (CBT) Recap	A		79,916				79,916	U

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	Engineer (Non-Construction) Equipment										
128	Handheld Standoff Minefield Detection Sys-Hst	B				5,000		5,000			U
129	Grnd Standoff Mine Detectn Sysm (GSTAMIDS)			39,350		32,442		32,442			U
130	Area Mine Detection System (AMDS)	A		10,500		10,571		10,571			U
131	Husky Mounted Detection System (HMDS)	A		274		21,695		21,695			U
132	Robotic Combat Support System (RCSS)			3,531		4,516		4,516			U
133	EOD Robotics Systems Recapitalization	A		1,949		10,073		10,073			U
134	Robotics and Applique Systems			5,515		3,000		3,000			U
135	Explosive Ordnance Disposal Eqpmt (EOD EQPMT)			4,547							U
136	Remote Demolition Systems	A		5,238		5,847		5,847			U
137	< $5m, Countermine Equipment	A		836		1,530		1,530			U
138	Family of Boats and Motors	A		3,567		4,302		4,302			U
	Combat Service Support Equipment										
139	Heaters and ECU'S	A		18,601		7,405		7,405		270	U
140	Soldier Enhancement			2,112		1,095		1,095			U
141	Personnel Recovery Support System (PRSS)	A		10,856		5,390		5,390			U
142	Ground Soldier System	A		32,419		38,219		38,219			U
143	Mobile Soldier Power	A		22,014		10,456		10,456			U
144	Force Provider	A		53,800							U

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	Engineer (Non-Construction) Equipment										
128	Handheld Standoff Minefield Detection Sys-Hst	B									U
129	Grnd Standoff Mine Detectn Sysm (GSTAMIDS)										U
130	Area Mine Detection System (AMDS)	A									U
131	Husky Mounted Detection System (HMDS)	A									U
132	Robotic Combat Support System (RCSS)										U
133	EOD Robotics Systems Recapitalization	A									U
134	Robotics and Applique Systems										U
135	Explosive Ordnance Disposal Eqpmt (EOD EQPMT)										U
136	Remote Demolition Systems	A									U
137	< $5m, Countermine Equipment	A									U
138	Family of Boats and Motors	A									U
	Combat Service Support Equipment										
139	Heaters and ECU'S	A		270							U
140	Soldier Enhancement										U
141	Personnel Recovery Support System (PRSS)	A									U
142	Ground Soldier System	A									U
143	Mobile Soldier Power	A									U
144	Force Provider	A									U

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	Engineer (Non-Construction) Equipment								
128	Handheld Standoff Minefield Detection Sys-Hst	B		5,000				5,000	U
129	Grnd Standoff Mine Detectn Sysm (GSTAMIDS)			32,442				32,442	U
130	Area Mine Detection System (AMDS)	A		10,571				10,571	U
131	Husky Mounted Detection System (HMDS)	A		21,695				21,695	U
132	Robotic Combat Support System (RCSS)			4,516				4,516	U
133	EOD Robotics Systems Recapitalization	A		10,073				10,073	U
134	Robotics and Applique Systems			3,000				3,000	U
135	Explosive Ordnance Disposal Eqpmt (EOD EQPMT)								U
136	Remote Demolition Systems	A		5,847				5,847	U
137	< $5m, Countermine Equipment	A		1,530				1,530	U
138	Family of Boats and Motors	A		4,302				4,302	U
	Combat Service Support Equipment								
139	Heaters and ECU'S	A		7,675				7,675	U
140	Soldier Enhancement			1,095				1,095	U
141	Personnel Recovery Support System (PRSS)	A		5,390				5,390	U
142	Ground Soldier System	A		38,219				38,219	U
143	Mobile Soldier Power	A		10,456				10,456	U
144	Force Provider	A							U

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Line No	Item Nomenclature	Ident Code	FY 2019 Base Quantity	FY 2019 Base Cost	FY 2019 OCO Quantity	FY 2019 OCO Cost	FY 2019 Total Quantity	FY 2019 Total Cost	Sec
	Engineer (Non-Construction) Equipment								
128	Handheld Standoff Minefield Detection Sys-Hst	B		8,471				8,471	U
129	Grnd Standoff Mine Detectn Sysm (GSTAMIDS)			29,883		16,000		45,883	U
130	Area Mine Detection System (AMDS)	A		11,594		1		11,595	U
131	Husky Mounted Detection System (HMDS)	A		40,834				40,834	U
132	Robotic Combat Support System (RCSS)			4,029		4,850		8,879	U
133	EOD Robotics Systems Recapitalization	A		14,208				14,208	U
134	Robotics and Applique Systems			31,456				31,456	U
135	Explosive Ordnance Disposal Eqpmt (EOD EQPMT)								U
136	Remote Demolition Systems	A		1,748		1		1,749	U
137	< $5m, Countermine Equipment	A		7,829				7,829	U
138	Family of Boats and Motors	A		5,806				5,806	U
	Combat Service Support Equipment								
139	Heaters and ECU'S	A		9,852		270		10,122	U
140	Soldier Enhancement			1,103				1,103	U
141	Personnel Recovery Support System (PRSS)	A		5,875		4,300		10,175	U
142	Ground Soldier System	A		92,487		1,725		94,212	U
143	Mobile Soldier Power	A		30,774				30,774	U
144	Force Provider	A				55,800		55,800	U

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145	Field Feeding Equipment			15,209		15,340		15,340		145	U
146	Cargo Aerial Del & Personnel Parachute System			20,909		30,607		30,607		1,980	U
147	Family of Engr Combat and Construction Sets	A		36,809		10,426		10,426			U
148	Items Less Than $5M (Eng Spt)	A		300							U
	Petroleum Equipment										
149	Quality Surveillance Equipment	A		8,207		6,903		6,903			U
150	Distribution Systems, Petroleum & Water			113,896		47,597		47,597			U
	Medical Equipment										
151	Combat Support Medical			75,524		43,343		43,343		25,690	U
	Maintenance Equipment										
152	Mobile Maintenance Equipment Systems	A		35,159		33,774		33,774		1,124	U
153	Items Less Than $5.0M (Maint Eq)	A		3,404		2,728		2,728			U
	Construction Equipment										
154	Grader, Road Mtzd, Hvy, 6x4 (CCE)	A		4,789		989		989			U
155	Scrapers, Earthmoving	A		26,233		11,180		11,180			U
156	Hydraulic Excavator	B		1,123						3,850	U
157	Tractor, Full Tracked	A		5,311							U
158	All Terrain Cranes	A		67,790		8,935		8,935			U
159	High Mobility Engineer Excavator (HMEE)	A		20,563		64,339		64,339		1,932	U

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Line No	Item Nomenclature	Ident Code	FY 2018 Total PB Requests+ with CR Adj OCO Quantity	FY 2018 Total PB Requests+ with CR Adj OCO Cost	FY 2018 Emergency Requests** Emergency Quantity	FY 2018 Emergency Requests** Emergency Cost	FY 2018 Less Enacted Div B P.L.115-96*** MDDE + Ship Repairs Quantity	FY 2018 Less Enacted Div B P.L.115-96*** MDDE + Ship Repairs Cost	FY 2018 Remaining Req Emergency Quantity	FY 2018 Remaining Req Emergency Cost	Sec
145	Field Feeding Equipment			145							U
146	Cargo Aerial Del & Personnel Parachute System			1,980							U
147	Family of Engr Combat and Construction Sets	A									U
148	Items Less Than $5M (Eng Spt)	A									U
	Petroleum Equipment										
149	Quality Surveillance Equipment	A									U
150	Distribution Systems, Petroleum & Water										U
	Medical Equipment										
151	Combat Support Medical			25,690							U
	Maintenance Equipment										
152	Mobile Maintenance Equipment Systems	A		1,124							U
153	Items Less Than $5.0M (Maint Eq)	A									U
	Construction Equipment										
154	Grader, Road Mtzd, Hvy, 6x4 (CCE)	A									U
155	Scrapers, Earthmoving	A									U
156	Hydraulic Excavator	B		3,850							U
157	Tractor, Full Tracked	A									U
158	All Terrain Cranes	A									U
159	High Mobility Engineer Excavator (HMEE)	A		1,932							U

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Line No	Item Nomenclature	Ident Code	FY 2018 Total PB Requests* with CR Adj Base + OCO + Emergency** Quantity	FY 2018 Total PB Requests* with CR Adj Base + OCO + Emergency** Cost	FY 2018 Less Enacted DIV B P.L.115-96*** MDDE + Ship Repairs Quantity	FY 2018 Less Enacted DIV B P.L.115-96*** MDDE + Ship Repairs Cost	FY 2018 Remaining Req with CR Adj Base + OCO + Emergency Quantity	FY 2018 Remaining Req with CR Adj Base + OCO + Emergency Cost	Sec
145	Field Feeding Equipment			15,485				15,485	U
146	Cargo Aerial Del & Personnel Parachute System			32,587				32,587	U
147	Family of Engr Combat and Construction Sets	A		10,426				10,426	U
148	Items Less Than $5M (Eng Spt)	A							U
	Petroleum Equipment								
149	Quality Surveillance Equipment	A		6,903				6,903	U
150	Distribution Systems, Petroleum & Water			47,597				47,597	U
	Medical Equipment								
151	Combat Support Medical			69,033				69,033	U
	Maintenance Equipment								
152	Mobile Maintenance Equipment Systems	A		34,898				34,898	U
153	Items Less Than $5.0M (Maint Eq)	A		2,728				2,728	U
	Construction Equipment								
154	Grader, Road Mtzd, Hvy, 6x4 (CCE)	A		989				989	U
155	Scrapers, Earthmoving	A		11,180				11,180	U
156	Hydraulic Excavator	B		3,850				3,850	U
157	Tractor, Full Tracked	A							U
158	All Terrain Cranes	A		8,935				8,935	U
159	High Mobility Engineer Excavator (HMEE)	A		66,271				66,271	U

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Line No	Item Nomenclature	Ident Code	FY 2019 Base Quantity	FY 2019 Base Cost	FY 2019 OCO Quantity	FY 2019 OCO Cost	FY 2019 Total Quantity	FY 2019 Total Cost	Sec
145	Field Feeding Equipment			17,521		1,035		18,556	U
146	Cargo Aerial Del & Personnel Parachute System			44,855		1,980		46,835	U
147	Family of Engr Combat and Construction Sets	A		17,173				17,173	U
148	Items Less Than $5M (Eng Spt)	A		2,000				2,000	U
	Petroleum Equipment								
149	Quality Surveillance Equipment	A		1,770				1,770	U
150	Distribution Systems, Petroleum & Water			39,730				39,730	U
	Medical Equipment								
151	Combat Support Medical			57,752		17,527		75,279	U
	Maintenance Equipment								
152	Mobile Maintenance Equipment Systems	A		37,722				37,722	U
153	Items Less Than $5.0M (Maint Eq)	A		4,985		268		5,253	U
	Construction Equipment								
154	Grader, Road Mtzd, Hvy, 6x4 (CCE)	A							U
155	Scrapers, Earthmoving	A		7,961				7,961	U
156	Hydraulic Excavator	B		1,355				1,355	U
157	Tractor, Full Tracked	A							U
158	All Terrain Cranes	A		13,031				13,031	U
159	High Mobility Engineer Excavator (HMEE)	A		46,048		25,700		71,748	U

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Line No	Item Nomenclature	Ident Code	FY 2017 (Base + OCO) Quantity	FY 2017 (Base + OCO) Cost	FY 2018 PB Request with CR Adj Base Quantity	FY 2018 PB Request with CR Adj Base Cost	FY 2018 Total PB Requests* with CR Adj Base Quantity	FY 2018 Total PB Requests* with CR Adj Base Cost	FY 2018 PB Request with CR Adj OCO Quantity	FY 2018 PB Request with CR Adj OCO Cost	Sec
160	Enhanced Rapid Airfield Construction Capap	B		2,779		2,563		2,563			U
161	Const Equip Esp			15,338		19,032		19,032			U
162	Items Less Than $5.0M (Const Equip)	A		8,075		6,899		6,899			U
	Rail Float Containerization Equipment										
163	Army Watercraft Esp	A		21,860		20,110		20,110			U
164	Items Less Than $5.0M (Float/Rail)	A		1,967		2,877		2,877			U
	Generators										
165	Generators and Associated Equip	A		132,391		115,635		115,635		569	U
166	Tactical Electric Power Recapitalization	A		7,867		7,436		7,436			U
	Material Handling Equipment										
167	Family of Forklifts	A		3,153		9,000		9,000			U
	Training Equipment										
168	Combat Training Centers Support			75,359		88,888		88,888			U
169	Training Devices, Nonsystem			253,050		285,989		285,989		2,700	U
170	Close Combat Tactical Trainer	A		47,962		45,718		45,718			U
171	Aviation Combined Arms Tactical Trainer			38,000		30,568		30,568			U
172	Gaming Technology In Support of Army Training			13,852		5,406		5,406			U
	Test Measure and Dig Equipment (TMD)										
173	Calibration Sets Equipment			4,963		5,564		5,564			U

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160	Enhanced Rapid Airfield Construction Capap	B									U
161	Const Equip Esp										U
162	Items Less Than $5.0M (Const Equip)	A									U
	Rail Float Containerization Equipment										
163	Army Watercraft Esp	A									U
164	Items Less Than $5.0M (Float/Rail)	A									U
	Generators										
165	Generators and Associated Equip	A		569							U
166	Tactical Electric Power Recapitalization	A									U
	Material Handling Equipment										
167	Family of Forklifts	A									U
	Training Equipment										
168	Combat Training Centers Support										U
169	Training Devices, Nonsystem			2,700							U
170	Close Combat Tactical Trainer	A									U
171	Aviation Combined Arms Tactical Trainer										U
172	Gaming Technology In Support of Army Training										U
	Test Measure and Dig Equipment (TMD)										
173	Calibration Sets Equipment										U

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160	Enhanced Rapid Airfield Construction Capap	B		2,563				2,563	U
161	Const Equip Esp			19,032				19,032	U
162	Items Less Than $5.0M (Const Equip)	A		6,899				6,899	U
	Rail Float Containerization Equipment								
163	Army Watercraft Esp	A		20,110				20,110	U
164	Items Less Than $5.0M (Float/Rail)	A		2,877				2,877	U
	Generators								
165	Generators and Associated Equip	A		116,204				116,204	U
166	Tactical Electric Power Recapitalization	A		7,436				7,436	U
	Material Handling Equipment								
167	Family of Forklifts	A		9,000				9,000	U
	Training Equipment								
168	Combat Training Centers Support			88,888				88,888	U
169	Training Devices, Nonsystem			288,689				288,689	U
170	Close Combat Tactical Trainer	A		45,718				45,718	U
171	Aviation Combined Arms Tactical Trainer			30,568				30,568	U
172	Gaming Technology In Support of Army Training			5,406				5,406	U
	Test Measure and Dig Equipment (TMD)								
173	Calibration Sets Equipment			5,564				5,564	U

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Line No	Item Nomenclature	Ident Code	FY 2019 Base Quantity	FY 2019 Base Cost	FY 2019 OCO Quantity	FY 2019 OCO Cost	FY 2019 Total Quantity	FY 2019 Total Cost	Sec
160	Enhanced Rapid Airfield Construction Capap	B		980				980	U
161	Const Equip Esp			37,017				37,017	U
162	Items Less Than $5.0M (Const Equip)	A		6,103				6,103	U
	Rail Float Containerization Equipment								
163	Army Watercraft Esp	A		27,711				27,711	U
164	Items Less Than $5.0M (Float/Rail)	A		8,385				8,385	U
	Generators								
165	Generators and Associated Equip	A		133,772		569		134,341	U
166	Tactical Electric Power Recapitalization	A		8,333				8,333	U
	Material Handling Equipment								
167	Family of Forklifts	A		12,901				12,901	U
	Training Equipment								
168	Combat Training Centers Support			123,228				123,228	U
169	Training Devices, Nonsystem			228,598				228,598	U
170	Close Combat Tactical Trainer	A		33,080				33,080	U
171	Aviation Combined Arms Tactical Trainer			32,700				32,700	U
172	Gaming Technology In Support of Army Training			25,161				25,161	U
	Test Measure and Dig Equipment (TMD)								
173	Calibration Sets Equipment			4,270				4,270	U

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174	Integrated Family of Test Equipment (IFTE)			35,737		30,144		30,144		7,500	U
175	Test Equipment Modernization (TEMOD)			7,482		7,771		7,771			U
	Other Support Equipment										
176	M25 Stabilized Binocular	A		3,149		3,956		3,956			U
177	Rapid Equipping Soldier Support Equipment	A		30,503		5,000		5,000		8,500	U
178	Physical Security Systems (OPA3)	A		44,082		60,047		60,047			U
179	Base Level Common Equipment			2,168		13,239		13,239			U
180	Modification of In-Svc Equipment (OPA-3)			80,438		60,192		60,192			U
181	Production Base Support (OTH)			1,528		2,271		2,271			U
182	Special Equipment for User Testing			14,289		5,319		5,319			U
183	Tractor Yard			6,888		5,935		5,935			U
	Total Other Support Equipment			1,680,264		1,359,097		1,359,097		57,986	
	Budget Activity 04: Spare and Repair Parts										
	OPA2										
184	Initial Spares - C&E			26,650		38,269		38,269			U
	Total Spare and Repair Parts			26,650		38,269		38,269			

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Line No	Item Nomenclature	Ident Code	FY 2018 Total PB Requests+ with CR Adj OCO Quantity	FY 2018 Total PB Requests+ with CR Adj OCO Cost	FY 2018 Emergency Requests** Emergency Quantity	FY 2018 Emergency Requests** Emergency Cost	FY 2018 Less Enacted Div B P.L.115-96*** MDDE + Ship Repairs Quantity	FY 2018 Less Enacted Div B P.L.115-96*** MDDE + Ship Repairs Cost	FY 2018 Remaining Req Emergency Quantity	FY 2018 Remaining Req Emergency Cost	Sec
174	Integrated Family of Test Equipment (IFTE)			7,500							U
175	Test Equipment Modernization (TEMOD)										U
	Other Support Equipment										
176	M25 Stabilized Binocular	A									U
177	Rapid Equipping Soldier Support Equipment	A		8,500							U
178	Physical Security Systems (OPA3)	A									U
179	Base Level Common Equipment										U
180	Modification of In-Svc Equipment (OPA-3)										U
181	Production Base Support (OTH)										U
182	Special Equipment for User Testing										U
183	Tractor Yard										U
	Total Other Support Equipment			57,986							
	Budget Activity 04: Spare and Repair Parts										
	OPA2										
184	Initial Spares - C&E										U
	Total Spare and Repair Parts										

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Line No	Item Nomenclature	Ident Code	FY 2018 Total PB Requests* with CR Adj Base + OCO + Emergency** Quantity	FY 2018 Total PB Requests* with CR Adj Base + OCO + Emergency** Cost	FY 2018 Less Enacted DIV B P.L.115-96*** MDDE + Ship Repairs Quantity	FY 2018 Less Enacted DIV B P.L.115-96*** MDDE + Ship Repairs Cost	FY 2018 Remaining Req with CR Adj Base + OCO + Emergency Quantity	FY 2018 Remaining Req with CR Adj Base + OCO + Emergency Cost	Sec
174	Integrated Family of Test Equipment (IFTE)			37,644				37,644	U
175	Test Equipment Modernization (TEMOD)			7,771				7,771	U
	Other Support Equipment								
176	M25 Stabilized Binocular	A		3,956				3,956	U
177	Rapid Equipping Soldier Support Equipment	A		13,500				13,500	U
178	Physical Security Systems (OPA3)	A		60,047				60,047	U
179	Base Level Common Equipment			13,239				13,239	U
180	Modification of In-Svc Equipment (OPA-3)			60,192				60,192	U
181	Production Base Support (OTH)			2,271				2,271	U
182	Special Equipment for User Testing			5,319				5,319	U
183	Tractor Yard			5,935				5,935	U
	Total Other Support Equipment			1,417,083				1,417,083	
	Budget Activity 04: Spare and Repair Parts								
	OPA2								
184	Initial Spares - C&E			38,269				38,269	U
	Total Spare and Repair Parts			38,269				38,269	

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Line No	Item Nomenclature	Ident Code	FY 2019 Base Quantity	FY 2019 Base Cost	FY 2019 OCO Quantity	FY 2019 OCO Cost	FY 2019 Total Quantity	FY 2019 Total Cost	Sec
174	Integrated Family of Test Equipment (IFTE)			76,295		9,495		85,790	U
175	Test Equipment Modernization (TEMOD)			9,806				9,806	U
	Other Support Equipment								
176	M25 Stabilized Binocular	A		4,368		33		4,401	U
177	Rapid Equipping Soldier Support Equipment	A		9,879		18,000		27,879	U
178	Physical Security Systems (OPA3)	A		54,043		6,000		60,043	U
179	Base Level Common Equipment			6,633		2,080		8,713	U
180	Modification of In-Svc Equipment (OPA-3)			49,797		19,200		68,997	U
181	Production Base Support (OTH)			2,301				2,301	U
182	Special Equipment for User Testing			11,608				11,608	U
183	Tractor Yard			4,956				4,956	U
	Total Other Support Equipment			1,926,106		246,578		2,172,684	
	Budget Activity 04: Spare and Repair Parts								
	OPA2								
184	Initial Spares - C&E			9,817				9,817	U
	Total Spare and Repair Parts			9,817				9,817	

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Budget Activity 20: Undistributed											
	Undistributed										
185	Adj to Match Continuing Resolution	A				-447,278		-447,278		1,421,544	U
	Total Undistributed					-447,278		-447,278		1,421,544	
	Total Other Procurement, Army			7,867,971		6,022,053		6,022,053		1,827,119	

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Budget Activity 20: Undistributed											
	Undistributed										
185	Adj to Match Continuing Resolution	A		1,421,544							U
	Total Undistributed			1,421,544							
	Total Other Procurement, Army			1,827,119							

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Budget Activity 20: Undistributed									
Undistributed									
185	Adj to Match Continuing Resolution	A		974,266				974,266	U
Total Undistributed				974,266				974,266	
Total Other Procurement, Army				7,849,172				7,849,172	

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Line No	Item Nomenclature	Ident Code	FY 2019 Base Quantity	FY 2019 Base Cost	FY 2019 OCO Quantity	FY 2019 OCO Cost	FY 2019 Total Quantity	FY 2019 Total Cost	Sec
	Budget Activity 20: Undistributed								
	Undistributed								
185	Adj to Match Continuing Resolution	A							U
	Total Undistributed								
	Total Other Procurement, Army			7,999,529		1,382,047		9,381,576	

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122	03	10	2224M11205	Family Of Non-Lethal Equipment (FNLE)	3
123	03	10	2300M90101	Base Defense Systems (BDS)	17
124	03	10	4516M01001	CBRN Defense	24
125	03	15	2831MX0100	Tactical Bridging	54
126	03	15	3542MA8890	Tactical Bridge, Float-Ribbon	65
127	03	15	3974G07000	Common Bridge Transporter (CBT) Recap	73
128	03	20	2876R68200	Handheld Standoff Minefield Detection Sys-HSTAMIDS	81
129	03	20	2881R68400	Grnd Standoff Mine Detectn Sysm (GSTAMIDS)	89
130	03	20	2888R68260	AREA MINE DETECTION SYSTEM (AMDS)	99
131	03	20	2889R64001	HUSKY MOUNTED DETECTION SYSTEM (HMDS)	107
132	03	20	4865M80400	Robotic Combat Support System (RCSS)	114
133	03	20	4867W12001	EOD Robotics Systems Recapitalization	120
134	03	20	4868W12002	Robotics and Applique Systems	129
135	03	20	5900MA9200	Explosive Ordnance Disposal Eqpmt (EOD EQPMT)	145
136	03	20	5912M60001	Remote Demolition Systems	146

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Line #	BA	BSA	Line Item Number	Line Item Title	Page
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138	03	20	8500R12001	Family of Boats and Motors	155
139	03	25	0100MF9000	Heaters and ECU's	168
140	03	25	8796MA6800	Soldier Enhancement	174
141	03	25	8822G01101	Personnel Recovery Support System (PRSS)	175
142	03	25	8825R80501	Ground Soldier System	180
143	03	25	8827R80800	Mobile Soldier Power	185
144	03	25	8860M80200	Force Provider	192
145	03	25	9120M65800	Field Feeding Equipment	200
146	03	25	9140MA7804	Cargo Aerial Del & Personnel Parachute Systems	216
147	03	25	9462R70001	Family Of Engr Combat and Construction Sets	228
148	03	25	9530ML5301	Items Less Than $5M (Eng Spt)	261
149	03	30	0725MB6400	QUALITY SURVEILLANCE EQUIPMENT	264
150	03	30	4700MA6000	Distribution Systems, Petroleum & Water	266
151	03	40	7500MN1000	Combat Support Medical	293
152	03	45	0639G05301	Mobile Maintenance Equipment Systems	303
153	03	45	9562ML5345	Items Less Than $5.0M (Maint Eq)	327
154	03	50	0375R03800	Grader, Road Mtzd, Hvy, 6X4 (CCE)	332

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Line #	BA	BSA	Line Item Number	Line Item Title	Page
155	03	50	0822RA0100	Scrapers, Earthmoving	333
156	03	50	4428X01500	Hydraulic Excavator	338
157	03	50	4700M05800	Tractor, Full Tracked	340
158	03	50	4734R06701	All Terrain Cranes	342
159	03	50	7495R05901	High Mobility Engineer Excavator (HMEE)	346
160	03	50	9090R07001	Enhanced Rapid Airfield Construction Capap	355
161	03	50	9120M05500	Const Equip ESP	357
162	03	50	9462ML5350	Items Less Than $5.0M (Const Equip)	363
163	03	55	3569M11101	Army Watercraft Esp	369
164	03	55	9552ML5355	Items Less Than $5.0M (Float/Rail)	378
165	03	60	0426MA9800	Generators And Associated Equip	382
166	03	60	9012R42501	Tactical Electric Power Recapitalization	413
167	03	65	5558G41001	Family Of Forklifts	418
168	03	70	1780MA6600	Combat Training Centers Support	425
169	03	70	2062NA0100	Training Devices, Nonsystem	435
170	03	70	6650NA0170	Close Combat Tactical Trainer	473
171	03	70	6800NA0173	Aviation Combined Arms Tactical Trainer	481
172	03	70	6860NA0176	Gaming Technology In Support of Army Training	489

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Line #	BA	BSA	Line Item Number	Line Item Title	Page
173	03	80	0100N10000	Calibration Sets Equipment	495
174	03	80	0200MB4000	Integrated Family Of Test Equipment (IFTE)	497
175	03	80	0600N11000	Test Equipment Modernization (TEMOD)	514
176	03	90	0000M62550	M25 STABILIZED BINOCULAR	521
177	03	90	0017M80101	Rapid Equipping Soldier Support Equipment	522
178	03	90	0050MA0780	Physical Security Systems (OPA3)	527
179	03	90	0312MB7000	Base Level Common Equipment	545
180	03	90	1110MA4500	Modification Of In-Svc Equipment (OPA-3)	547
181	03	90	1220MA0450	Production Base Support (OTH)	580
182	03	90	1572MA6700	Special Equipment For User Testing	582
183	03	90	9219MA8975	TRACTOR YARD	590

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Line #	BA	BSA	Line Item Number	Line Item Title	Page
184	04	20	0200BS9100	INITIAL SPARES - C&E	591

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Line Item Title	Line Item Number	Line #	BA	BSA	Page
< $5M, Countermine Equipment	5943MA7700	137	03	20	147
AREA MINE DETECTION SYSTEM (AMDS)	2888R68260	130	03	20	99
All Terrain Cranes	4734R06701	158	03	50	342
Army Watercraft Esp	3569M11101	163	03	55	369
Aviation Combined Arms Tactical Trainer	6800NA0173	171	03	70	481
Base Defense Systems (BDS)	2300M90101	123	03	10	17
Base Level Common Equipment	0312MB7000	179	03	90	545
CBRN Defense	4516M01001	124	03	10	24
Calibration Sets Equipment	0100N10000	173	03	80	495
Cargo Aerial Del & Personnel Parachute Systems	9140MA7804	146	03	25	216
Close Combat Tactical Trainer	6650NA0170	170	03	70	473
Combat Support Medical	7500MN1000	151	03	40	293
Combat Training Centers Support	1780MA6600	168	03	70	425
Common Bridge Transporter (CBT) Recap	3974G07000	127	03	15	73
Const Equip ESP	9120M05500	161	03	50	357
Distribution Systems, Petroleum & Water	4700MA6000	150	03	30	266
EOD Robotics Systems Recapitalization	4867W12001	133	03	20	120

Line Item Title	Line Item Number	Line #	BA	BSA	Page
Enhanced Rapid Airfield Construction Capap	9090R07001	160	03	50	355
Explosive Ordnance Disposal Eqpmt (EOD EQPMT)	5900MA9200	135	03	20	145
Family Of Engr Combat and Construction Sets	9462R70001	147	03	25	228
Family Of Forklifts	5558G41001	167	03	65	418
Family Of Non-Lethal Equipment (FNLE)	2224M11205	122	03	10	3
Family of Boats and Motors	8500R12001	138	03	20	155
Field Feeding Equipment	9120M65800	145	03	25	200
Force Provider	8860M80200	144	03	25	192
Gaming Technology In Support of Army Training	6860NA0176	172	03	70	489
Generators And Associated Equip	0426MA9800	165	03	60	382
Grader, Road Mtzd, Hvy, 6X4 (CCE)	0375R03800	154	03	50	332
Grnd Standoff Mine Detectn Sysm (GSTAMIDS)	2881R68400	129	03	20	89
Ground Soldier System	8825R80501	142	03	25	180
HUSKY MOUNTED DETECTION SYSTEM (HMDS)	2889R64001	131	03	20	107
Handheld Standoff Minefield Detection Sys-HSTAMIDS	2876R68200	128	03	20	81
Heaters and ECU's	0100MF9000	139	03	25	168
High Mobility Engineer Excavator (HMEE)	7495R05901	159	03	50	346
Hydraulic Excavator	4428X01500	156	03	50	338
INITIAL SPARES - C&E	0200BS9100	184	04	20	591
Integrated Family Of Test Equipment (IFTE)	0200MB4000	174	03	80	497

Line Item Title	Line Item Number	Line #	BA	BSA	Page
Items Less Than $5.0M (Const Equip)	9462ML5350	162	03	50	363
Items Less Than $5.0M (Float/Rail)	9552ML5355	164	03	55	378
Items Less Than $5.0M (Maint Eq)	9562ML5345	153	03	45	327
Items Less Than $5M (Eng Spt)	9530ML5301	148	03	25	261
M25 STABILIZED BINOCULAR	0000M62550	176	03	90	521
Mobile Maintenance Equipment Systems	0639G05301	152	03	45	303
Mobile Soldier Power	8827R80800	143	03	25	185
Modification Of In-Svc Equipment (OPA-3)	1110MA4500	180	03	90	547
Personnel Recovery Support System (PRSS)	8822G01101	141	03	25	175
Physical Security Systems (OPA3)	0050MA0780	178	03	90	527
Production Base Support (OTH)	1220MA0450	181	03	90	580
Protective Systems	2205W01103	121	03	10	1
QUALITY SURVEILLANCE EQUIPMENT	0725MB6400	149	03	30	264
Rapid Equipping Soldier Support Equipment	0017M80101	177	03	90	522
Remote Demolition Systems	5912M60001	136	03	20	146
Robotic Combat Support System (RCSS)	4865M80400	132	03	20	114
Robotics and Applique Systems	4868W12002	134	03	20	129
Scrapers, Earthmoving	0822RA0100	155	03	50	333
Soldier Enhancement	8796MA6800	140	03	25	174
Special Equipment For User Testing	1572MA6700	182	03	90	582

Line Item Title	Line Item Number	Line #	BA	BSA	Page
TRACTOR YARD	9219MA8975	183	03	90	590
Tactical Bridge, Float-Ribbon	3542MA8890	126	03	15	65
Tactical Bridging	2831MX0100	125	03	15	54
Tactical Electric Power Recapitalization	9012R42501	166	03	60	413
Test Equipment Modernization (TEMOD)	0600N11000	175	03	80	514
Tractor, Full Tracked	4700M05800	157	03	50	340
Training Devices, Nonsystem	2062NA0100	169	03	70	435

Exhibit P-40, Budget Line Item Justification: PB 2019 Army	Date: February 2018
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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	4	9,588	5,134	7,762	61	7,823	-	-	-	-	-	22,549
Gross/Weapon System Cost *($ in Millions)*	0.248	2.966	1.613	2.314	0.027	2.341	-	-	-	-	-	7.168
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	0.248	2.966	1.613	2.314	0.027	2.341	-	-	-	-	-	7.168
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**0.248**	**2.966**	**1.613**	**2.314**	**0.027**	**2.341**	**-**	**-**	**-**	**-**	**-**	**7.168**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost *($ in Thousands)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Thousands)*	62.000	0.309	0.314	0.298	0.443	0.299	-	-	-	-	-	0.318

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.

Additional Team Evidence Collection Kit (TECK) 61 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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023
Army	Quantity	2,718	1,333	2,349	61	2,410	-	-	-	-
	Total Obligation Authority	0.841	0.488	0.659	0.027	0.686	-	-	-	-
ANG	Quantity	5,270	3,417	4,001	-	4,001	-	-	-	-
	Total Obligation Authority	1.630	0.756	1.224	-	1.224	-	-	-	-
AR	Quantity	1,600	384	1,412	-	1,412	-	-	-	-
	Total Obligation Authority	0.495	0.369	0.431	-	0.431	-	-	-	-
Total:	**Quantity**	**9,588**	**5,134**	**7,762**	**61**	**7,823**	**-**	**-**	**-**	**-**

Exhibit P-40, Budget Line Item Justification: PB 2019 Army	Date: February 2018
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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023
Secondary Distribution	Total Obligation Authority	2.966	1.613	2.314	0.027	2.341	-	-	-	-

Justification:
FY19 Base procurement funding in the amount of $2.314 million procures 4980 Individual Point of Capture Kit (IPOCK), 1895 Leader Point of Capture Kit (LPOCK) , 615 Team Evidence Collection Kit (TECK), and Platoon Evidence Collection Kit (272) PECK. KECDP kits will give our forces modernized and standardized evidence collection capability supporting the Military Police disciplines (Security and Mobility Support, Police Operations, & Detention Operations) and intelligence collection processes.

FY19 OCO procurement funding in the amount of $.027 million procures 61 Team Evidence Collection Kit (TECK). KECDP kits will give our forces modernized and standardized evidence collection capability supporting the Military Police disciplines (Security and Mobility Support, Police Operations, & Detention Operations) and intelligence collection processes.

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.

Exhibit P-40, Budget Line Item Justification: PB 2019 Army	Date: February 2018
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): 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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	21	236	232	124	1,082	1,206	126	658	701	1,125	-	4,305
Gross/Weapon System Cost *($ in Millions)*	5.396	9.795	9.696	7.478	20.200	27.678	6.865	15.345	15.053	23.039	-	112.867
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	5.396	9.795	9.696	7.478	20.200	27.678	6.865	15.345	15.053	23.039	-	112.867
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**5.396**	**9.795**	**9.696**	**7.478**	**20.200**	**27.678**	**6.865**	**15.345**	**15.053**	**23.039**	**-**	**112.867**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost *($ in Thousands)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Thousands)*	256.952	41.504	41.793	60.306	18.669	22.950	54.484	23.321	21.474	20.479	-	26.218

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 300 meters with background noise present at the target's location. AHDs will support Military Police (MP), Transportation units and Psychological Operations (PSYOP), to engage non-combatants during support and stability operations. Less than lethal force is desired and necessary to prevent and minimize civilian casualties. Equipment will allow Soldiers to effectively determine the intent of a person, crowd, vessel or vehicle at a safe distance and potentially deter them prior to escalating to lethal force. This item is Code A, approved for service use.

M11206 The Remote Deployment Device (RDD) - Single Net solution (SNS) system is wheeled vehicle stopping system. The RDD is capable of deploying a SNS in 2 seconds. The SNS is a a single use net with spikes designed to stop wheeled vehicles up to 22,000 lbs. traveling up to 30 mph within 200 ft. The SNS can be hand emplaced or remotely deployed with an RDD from a standoff distance of up to 100 meters. A complete RDD-SNS system includes (1) RDD and (2) SNS. This item is Code B, not approved for service use.

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023
Army	Quantity	59	95	42	1,082	1,124	43	218	231	371
	Total Obligation Authority	3.762	2.804	2.817	20.200	23.017	2.501	5.064	4.967	7.565
ANG	Quantity	116	78	63	-	63	64	336	358	574
	Total Obligation Authority	3.954	4.538	3.793	-	3.793	3.487	7.826	7.677	11.746
AR	Quantity	61	59	19	-	19	19	104	112	180
	Total Obligation Authority	2.079	2.354	0.868	-	0.868	0.877	2.455	2.409	3.728
Total: Secondary Distribution	**Quantity**	**236**	**232**	**124**	**1,082**	**1,206**	**126**	**658**	**701**	**1,125**
	Total Obligation Authority	**9.795**	**9.696**	**7.478**	**20.200**	**27.678**	**6.865**	**15.345**	**15.053**	**23.039**

Exhibit P-40, Budget Line Item Justification: PB 2019 Army	Date: February 2018
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): 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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 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	B		- / -	- / 1.750	33 / 1.636	6 / 2.051	597 / 6.600	603 / 8.651
P-5	M11309 / ACOUSTIC HAILING DEVICE (AHD)	P-5a, P-21	A		21 / 5.396	236 / 8.045	199 / 8.060	118 / 5.427	485 / 13.600	603 / 19.027
P-40	**Total Gross/Weapon System Cost**				**21 / 5.396**	**236 / 9.795**	**232 / 9.696**	**124 / 7.478**	**1,082 / 20.200**	**1,206 / 27.678**

*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 2019 Base procurement dollars in the amount of $7.478 million supports procurement of 118 AHDs and supports the procurement of 6 RDD-SNS Systems (2 RDDs and 4 SNSs). Funding also supports Fielding and New Equipment Training (NET).

FY 2019 OCO request supports procurement of critical Army Systems consumed in support of Operation Inherent Resolve for ISIL
The FY 2019 OCO procurement dollars in the amount of $20.200 million supports the procurement of 485 AHDs and 597 RDD-SNS Systems (199 RDDs and 398 SNSs).

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.

Exhibit P-5, Cost Analysis: PB 2019 Army		Date: February 2018
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) : B		**MDAP/MAIS Code:**

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Procurement Quantity *(Units in Each)*	-	-	33	6	597	603
Gross/Weapon System Cost *($ in Millions)*	-	1.750	1.636	2.051	6.600	8.651
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	-	1.750	1.636	2.051	6.600	8.651
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**-**	**1.750**	**1.636**	**2.051**	**6.600**	**8.651**
(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)*	-	-	49.576	341.833	11.055	14.347

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

Cost Elements	Prior Years			FY 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 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)(†)	-	-	-	-	-	-	16.545	33	0.546	13.000	6	0.078	11.055	597	6.600	11.075	603	6.678
Subtotal: Recurring Cost	-	-	-	-	-	-	-	-	*0.546*	-	-	*0.078*	-	-	*6.600*	-	-	*6.678*
Subtotal: Hardware Cost	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***0.546***	**-**	**-**	***0.078***	**-**	**-**	***6.600***	**-**	**-**	***6.678***
Logistics Cost																		
Non Recurring Cost																		
Fielding & NET	-	-	-	-	-	-	-	-	-	-	-	0.773	-	-	-	-	-	0.773
Subtotal: Non Recurring Cost	-	-	-	-	-	-	-	-	-	-	-	*0.773*	-	-	-	-	-	*0.773*
Subtotal: Logistics Cost	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***0.773***	**-**	**-**	**-**	**-**	**-**	***0.773***
Support - Production Engineering Cost																		
Production Engineering	-	-	-	-	-	1.750	-	-	1.090	-	-	1.200	-	-	-	-	-	1.200
Subtotal: Support - Production Engineering Cost	**-**	**-**	**-**	**-**	**-**	***1.750***	**-**	**-**	***1.090***	**-**	**-**	***1.200***	**-**	**-**	**-**	**-**	**-**	***1.200***
Gross/Weapon System Cost	**-**	**-**	**-**	**-**	**-**	**1.750**	**49.576**	**33**	**1.636**	**341.833**	**6**	**2.051**	**11.055**	**597**	**6.600**	**14.347**	**603**	**8.651**

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Army	Quantity	-	11	3	597	600

Exhibit P-5, Cost Analysis: PB 2019 Army		Date: February 2018
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) : B		**MDAP/MAIS Code:**

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
	Total Obligation Authority	1.750	0.540	1.026	6.600	7.626
ANG	Quantity	-	17	3	-	3
	Total Obligation Authority	-	0.834	1.025	-	1.025
AR	Quantity	-	5	-	-	-
	Total Obligation Authority	-	0.262	-	-	-
Total: Secondary Distribution	**Quantity**	**-**	**33**	**6**	**597**	**603**
	Total Obligation Authority	**1.750**	**1.636**	**2.051**	**6.600**	**8.651**

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2019 Army		Date: February 2018
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	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
Remote Deployed Device (RDD)(†)		2018	TBS / TBS	C / FFP	Picatinny Arsenal, NJ	Sep 2018	Dec 2019	33	16.550	Y		
Remote Deployed Device (RDD)(†)		2019	TBS / TBS	C / FFP	Picatinny Arsenal, NJ	Mar 2019	Jun 2020	603	11.080	Y		

(†) indicates the presence of a P-21

Exhibit P-21, Production Schedule: PB 2019 Army		Date: February 2018
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 (Units in Each)							Fiscal Year 2018												Fiscal Year 2019												
							Calendar Year 2018												Calendar Year 2019												
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2017	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	BALANCE
Remote Deployed Device (RDD)																														
	1	2018	ARMY	33	0	33												A -	-	-	-	-	-	-	-	-	-	-	-	-	33
	1	2019	ARMY	603	0	603																		A -	-	-	-	-	-	-	603
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2019 Army		Date: February 2018
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 (Units in Each)							Fiscal Year 2020												Fiscal Year 2021												BALANCE
										Calendar Year 2020														Calendar Year 2021									
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2019	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
Remote Deployed Device (RDD)																															
	1	2018	ARMY	33	0	33	-	-	33																						0
	1	2019	ARMY	603	0	603	-	-	-	-	-	-	-	-	125	125	125	125	103												0
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2019 Army		Date: February 2018
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)							
					Initial				Reorder			
		MSR For 2019	1-8-5 For 2019	MAX For 2019	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 - TBS	10	125	200	15	15	4	19	15	15	2	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).

Exhibit P-5, Cost Analysis: PB 2019 Army		Date: February 2018
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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Procurement Quantity *(Units in Each)*	21	236	199	118	485	603
Gross/Weapon System Cost *($ in Millions)*	5.396	8.045	8.060	5.427	13.600	19.027
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	5.396	8.045	8.060	5.427	13.600	19.027
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**5.396**	**8.045**	**8.060**	**5.427**	**13.600**	**19.027**
(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)*	256.952	34.089	40.503	45.992	28.041	31.554

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

Cost Elements	Prior Years			FY 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 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(†)	-	-	-	24.600	236	5.806	26.605	200	5.321	26.584	118	3.137	28.039	485	13.600	27.756	603	16.737
Subtotal: Recurring Cost	-	-	-	-	-	*5.806*	-	-	*5.321*	-	-	*3.137*	-	-	*13.599*	-	-	*16.736*
Subtotal: Hardware Cost	**-**	**-**	**-**	**-**	**-**	***5.806***	**-**	**-**	***5.321***	**-**	**-**	***3.137***	**-**	**-**	***13.599***	**-**	**-**	***16.736***
Logistics Cost																		
Non Recurring Cost																		
Fielding and NET	-	-	-	-	-	0.138	-	-	0.500	-	-	0.470	-	-	-	-	-	0.470
Subtotal: Non Recurring Cost	-	-	-	-	-	*0.138*	-	-	*0.500*	-	-	*0.470*	-	-	-	-	-	*0.470*
Subtotal: Logistics Cost	**-**	**-**	**-**	**-**	**-**	***0.138***	**-**	**-**	***0.500***	**-**	**-**	***0.470***	**-**	**-**	**-**	**-**	**-**	***0.470***
Support - Production Engineering Cost																		
Production Engineering	-	-	5.396	-	-	2.101	-	-	2.238	-	-	1.820	-	-	-	-	-	1.820
Subtotal: Support - Production Engineering Cost	**-**	**-**	***5.396***	**-**	**-**	***2.101***	**-**	**-**	***2.238***	**-**	**-**	***1.820***	**-**	**-**	**-**	**-**	**-**	***1.820***
Gross/Weapon System Cost	**256.952**	**21**	**5.396**	**34.089**	**236**	**8.045**	**40.503**	**199**	**8.060**	**45.992**	**118**	**5.427**	**28.041**	**485**	**13.600**	**31.554**	**603**	**19.027**

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Army	Quantity	59	84	39	485	524

Exhibit P-5, Cost Analysis: PB 2019 Army		Date: February 2018
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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
	Total Obligation Authority	2.012	2.264	1.791	13.600	15.391
ANG	Quantity	116	61	60	-	60
	Total Obligation Authority	3.954	3.704	2.768	-	2.768
AR	Quantity	61	54	19	-	19
	Total Obligation Authority	2.079	2.092	0.868	-	0.868
Total: Secondary Distribution	**Quantity**	**236**	**199**	**118**	**485**	**603**
	Total Obligation Authority	**8.045**	**8.060**	**5.427**	**13.600**	**19.027**

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2019 Army		Date: February 2018
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	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
Acoustic Hailing Device System(†)		2017	TBS / TBS	C / FFP	TBS	Sep 2017	Feb 2018	236	24.600	Y		
Acoustic Hailing Device System(†)		2018	TBS / TBS	C / FFP	TBS	Aug 2018	Jan 2019	200	26.610	Y		
Acoustic Hailing Device System(†)		2019	TBS / TBS	C / FFP	TBS	Mar 2019	Aug 2019	603	27.760	Y		

(†) indicates the presence of a P-21

Exhibit P-21, Production Schedule: PB 2019 Army		Date: February 2018
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 (Units in Each)							Fiscal Year 2017												Fiscal Year 2018											BALANCE
										Calendar Year 2017														Calendar Year 2018									
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2016	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
Acoustic Hailing Device System																														
	1	2017	ARMY	236	0	236												A -	-	-	-	-	30	30	30	30	30	30	30	26	0
	1	2018	ARMY	200	0	200																							A -	-	200
	1	2019	ARMY	603	0	603																									603
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2019 Army		Date: February 2018
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 (Units in Each)							Fiscal Year 2019												Fiscal Year 2020												BALANCE
										Calendar Year 2019														Calendar Year 2020									
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2018	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
Acoustic Hailing Device System																															
	1	2017	ARMY	236	236	0																									0
	1	2018	ARMY	200	0	200	-	-	-	20	20	20	20	20	20	20	20	20	20												0
	1	2019	ARMY	603	0	603						A -	-	-	-	-	50	50	50	50	50	65	65	65	65	65	28				0
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2019 Army		Date: February 2018
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)							
					Initial				Reorder			
		MSR For 2019	1-8-5 For 2019	MAX For 2019	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 - TBS	10	125	200	8	6	5	11	8	6	2	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).

Exhibit P-40, Budget Line Item Justification: PB 2019 Army	Date: February 2018
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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	1	1	2	-	4
Gross/Weapon System Cost *($ in Millions)*	-	26.572	3.726	-	39.200	39.200	-	0.727	0.705	2.362	-	73.292
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	-	26.572	3.726	-	39.200	39.200	-	0.727	0.705	2.362	-	73.292
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**-**	**26.572**	**3.726**	**-**	**39.200**	**39.200**	**-**	**0.727**	**0.705**	**2.362**	**-**	**73.292**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost *($ in Thousands)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Thousands)*	-	-	-	-	-	-	-	727.000	705.000	1,181.000	-	18,323.000

Description:

Base Defense Systems (BDS) includes Non-Intrusive Inspection Systems (NIIS) (M90108), Battlefield Anti-Intrusion System (BAIS) (M90202), Lighting Kit Motion Detection (LKMD) (M90204), Integrated Ground Security, Surveillance and Response Capability (IGSSR-C)(M90106) Ground-Based Operational Surveillance System (Expeditionary) (GBOSS-E) (M90212), Tactical Security System (TSS) (M90220) and Integrated Base Defense (IBD) Kitting (M90115)

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. The current family of systems includes the Z-backscatter Van (ZBV), Military Mobile Vehicle and Cargo Inspection System (MMVACIS) and personnel scanners such as the Secure-1000. 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.

BAIS is a compact, modular, light-weight, unattended tactical ground seismic/acoustic sensor that provides tactical units and Forward Operating Bases with an enhanced force protection capability. BAIS enhances force protection and provides early detection and warning of personnel and wheeled or tracked vehicles, increasing situational awareness during defensive and ambush-type operations. BAIS can be integrated into a layered system of systems force protection plan for small tactical units. BAIS is also one of the sub-systems included in the Force Protection Suite that is part of the Base Expeditionary Targeting and Surveillance System, Combined, employed in Forward Operating Bases (FOB) and Combat Outpost (COP) defense and force protection. BAIS provides combat Soldiers a force multiplier force protection system that significantly increases the combat potential and Soldier survivability, enhancing the probability of successful mission accomplishment. BAIS replaces the Platoon Early Warning System (PEWS), which is no longer in production. The Army Acquisition Objective (AAO) is 8,933 systems.

LKMD is a lightweight, man-portable, easily emplaced and recoverable motion activated warning device. LKMD provides an early detection and warning capability enhancing force protection and situational awareness during all types of combat operations. LKMD is a motion activated (Infrared (IR) and Microwave) warning and illumination (visible light, IR and strobe) system. LKMD can be employed in a stand-alone configuration or as part of an integrated protection plan. LKMD provides small-unit Commanders with close-in warning of imminent intrusion and illuminates the intrusion where it occurs, permitting easier identification and facilitating appropriate responses. LKMD systems will be organic to appropriate tactical units. LKMD provides support systems to Army units either operating in or deploying to combat theaters, thereby increasing force protection posture. The Army fielding plan, based on the approved Basis of Issue Plan, requires systems be provided to the following types of units: Military Police, Infantry, Armor and Combat Engineers. LKMD replaces the M49 Trip Flare, Electronic which is no longer in production. The Army Acquisition Objective (AAO) is 23,545 systems.

Exhibit P-40, Budget Line Item Justification: PB 2019 Army	Date: February 2018
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

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.

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 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.

The purpose of IBD Kitting is to harvest and refurbish physical security and FP 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 support of JUONS 0540 to address the Vehicle Borne Explosive Device (VBIED) threat, additional sensor systems will be procured and integrated into the current Force Protection infrastructure.

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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023
Army	Quantity	-	0	0	-	0	-	1	1	2
	Total Obligation Authority	26.572	3.726	0.000	39.200	39.200	-	0.727	0.705	2.362
Total: Secondary Distribution	**Quantity**	**-**	**-**	**-**	**-**	**-**	**-**	**1**	**1**	**2**
	Total Obligation Authority	**26.572**	**3.726**	**-**	**39.200**	**39.200**	**-**	**0.727**	**0.705**	**2.362**

Exhibit P-40, Budget Line Item Justification: PB 2019 Army	Date: February 2018
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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 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	M90115 / INTEG BASE DEF NONSTAND EQUIP (IBD NS-E) KITTING	P-5a			- / -	- / -	- / 3.726	- / -	- / 39.200	- / 39.200
P-40a	M90212 / GRND-BASED OPNL SURV SYS (EXPED) (GBOSS-E)				- / -	- / 26.572	- / -	- / -	- / -	- / -
P-40	**Total Gross/Weapon System Cost**				**- / -**	**- / 26.572**	**- / 3.726**	**- / -**	**- / 39.200**	**- / 39.200**

*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:
FY19 Overseas Contingency Operation's (OCO) Procurement in the amount of $31.976 million provides hardware equipment for Integrated Base Defense (IBD) Kitting in support of Capability Retention Requirement and Implementation Plan (CRRIP). FY19 Overseas Contingency Operation's (OCO) Procurement in the amount of $7.224 million provides wide area motion imaging sensors in support of JUONS 540 capability gaps.

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.

Exhibit P-5, Cost Analysis: PB 2019 Army		Date: February 2018
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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	-	-	3.726	-	39.200	39.200
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	-	-	3.726	-	39.200	39.200
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**-**	**-**	**3.726**	**-**	**39.200**	**39.200**
(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)*	-	-	-	-	-	-

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

Cost Elements	Prior Years			FY 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 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																		
IBD Govt Program Management Support	-	-	-	-	-	-	-	-	0.060	-	-	-	-	-	2.906	-	-	2.906
IBD Equipment[(†)]	-	-	-	-	-	-	3,566.000	1	3.566	-	-	-	-	-	29.070	-	-	29.070
IBD Kit Transportation	-	-	-	-	-	-	-	-	0.100	-	-	-	-	-	-	-	-	-
JUONS 540 Equipment	-	-	-	-	-	-	-	-	-	-	-	-	2,100.000	3	6.300	2,100.000	3	6.300
JUONS 540 Intitial Spares	-	-	-	-	-	-	-	-	-	-	-	-	924.000	1	0.924	924.000	1	0.924
Subtotal: Recurring Cost	-	-	-	-	-	-	-	-	*3.726*	-	-	*0.000*	-	-	*39.200*	-	-	*39.200*
Subtotal: Flyaway Cost	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***3.726***	**-**	**-**	***0.000***	**-**	**-**	***39.200***	**-**	**-**	***39.200***
Gross/Weapon System Cost	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**3.726**	**-**	**-**	**-**	**-**	**-**	**39.200**	**-**	**-**	**39.200**

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Army	Quantity	-	-	-	-	-
	Total Obligation Authority	-	3.726	0.000	39.200	39.200
Total:	**Quantity**	**-**	**-**	**-**	**-**	**-**

Exhibit P-5, Cost Analysis: PB 2019 Army		Date: February 2018
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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Secondary Distribution	Total Obligation Authority	-	3.726	-	39.200	39.200

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2019 Army		Date: February 2018
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	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
IBD Equipment		2018	TBD / TBD	TBD	TBD	Jan 2018	Jul 2018	1	3,566.000			

Remarks:
Repair parts are Commercial Off The Shelf (COTS) equipment and purchased from Defense Logistics Agency (DLA). Parts are procured from various vendors. Delivery dates are multiple and TBD.

Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Army		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 10	P-1 Line Item Number / Title: 2300M90101 / Base Defense Systems (BDS)	Aggregated Items Title: Various

Item Number / Title [DODIC]	ID CD	MDAP/ MAIS Code	Prior Years			FY 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 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)
GRND-BASED OPNL SURV SYS (EXPED) (GBOSS-E)																				
M90212 / GRND-BASED OPNL SURV SYS (EXPED) (GBOSS-E)			-	-	-	-	-	26.572	-	-	-	-	-	-	-	-	-	-	-	-
Secondary Distribution																				
Army				-	-		-	26.572		-	-		-	-		-	-		-	-
Subtotal: GRND-BASED OPNL SURV SYS (EXPED) (GBOSS-E)			**-**	**-**	**-**	**-**	**-**	***26.572***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Total			**-**	**-**	**-**	**-**	**-**	**26.572**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**

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

Exhibit P-40, Budget Line Item Justification: PB 2019 Army	Date: February 2018
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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	24,911	17,796	9,268	269	-	269	1,264	1,434	2,890	3,085	-	60,917
Gross/Weapon System Cost *($ in Millions)*	264.643	47.743	11.110	173.954	2.317	176.271	11.804	43.496	52.181	69.910	-	677.158
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	264.643	47.743	11.110	173.954	2.317	176.271	11.804	43.496	52.181	69.910	-	677.158
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**264.643**	**47.743**	**11.110**	**173.954**	**2.317**	**176.271**	**11.804**	**43.496**	**52.181**	**69.910**	**-**	**677.158**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost *($ in Thousands)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Thousands)*	10.624	2.683	1.199	646.669	-	655.283	9.339	30.332	18.056	22.661	-	11.116

Description:

Funds acquisition of critically required Chemical Biological equipment needed to support Army mission requirements in five primary categories: Collective Protection (M01006), Decontamination (M01007), Contamination Avoidance (M01008), Individual Protection (M99001), and Weapons of Mass Destruction (WMD) Elimination (M01011). 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 provides Protective Masks and test equipment. The WMD Elimination (M01011) procurement efforts support missions to systematically detect, locate, characterize, identify, secure, disable and/or destroy WMD weapons, materials and related capabilities within CONUS, OCONUS and Theater.

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023
Army	Quantity	13,925	6,166	262	-	262	608	719	1,424	1,486
	Total Obligation Authority	32.724	6.442	164.818	2.317	167.135	7.732	18.294	26.674	34.874
ANG	Quantity	3,110	3,100	4	-	4	467	515	1,059	1,132
	Total Obligation Authority	9.178	2.668	5.136	-	5.136	2.912	14.060	18.333	25.094
AR	Quantity	761	2	3	-	3	189	200	407	467
	Total Obligation Authority	5.841	2.000	4.000	-	4.000	1.160	11.142	7.174	9.942
Total: Secondary Distribution	**Quantity**	**17,796**	**9,268**	**269**	**-**	**269**	**1,264**	**1,434**	**2,890**	**3,085**
	Total Obligation Authority	**47.743**	**11.110**	**173.954**	**2.317**	**176.271**	**11.804**	**43.496**	**52.181**	**69.910**

Exhibit P-40, Budget Line Item Justification: PB 2019 Army	Date: February 2018
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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 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, P-21	B		26 / 52.166	16 / 13.740	5 / 7.000	14 / 19.136	- / 2.317	14 / 21.453
P-5	M01007 / DECONTAMINATION (DECON)	P-5a, P-21			- / 4.267	- / -	- / -	- / 36.000	- / -	- / 36.000
P-5	M01008 / CONTAMINATION AVOIDANCE (CA)	P-5a, P-21			- / 141.919	8,759 / 3.564	7,477 / 1.610	69 / 86.000	- / -	69 / 86.000
P-5	M01011 / CBRNE WMD - Elimination	P-5a			24,885 / 47.160	9,021 / 2.459	1,786 / 2.500	- / -	- / -	- / -
P-5	M01280 / RADIAC SET AN/PDR 77()	P-5a			- / 1.529	- / -	- / -	186 / 32.818	- / -	186 / 32.818
P-5	M99001 / INDIVIDUAL PROTECTION (IP)	P-5a			- / 17.602	- / 27.980	- / -	- / -	- / -	- / -
P-40	**Total Gross/Weapon System Cost**				**24,911 / 264.643**	**17,796 / 47.743**	**9,268 / 11.110**	**269 / 173.954**	**- / 2.317**	**269 / 176.271**

*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:
Collective Protection (M01006):

FY19 Base dollars in the amount of $19.136 million supports the procurement and fielding of seven Chemical Biological Protective Shelter (CBPS) Systems and thirty-six Joint Expeditionary Collective Protection (JECP) systems. The CBPS provides the Forward Surgical Team (FST) and the Area Support Medical Company (ASMC) with a CB protective shelter system that allows their mission to continue in a chemical/ biological environment. The FST and ASMC, which by doctrine must function together, are critical assets to the Brigade Combat Team Commander. The CBPS also provides chemical protective shelter capabilities to the Role 1 Medical Treatment Facility (MTF)/Battalion Aide Station (BAS) mission.

Contamination Avoidance (M01008):

FY19 Base dollars in the amount of $86.000 million supports the Integrated Early Warning (IEW), the procurement of CBRN Robotics, MRDS, PINS, RAZORS, and HAPSITE. This equipment will be used to increase unit and individual survivability.

Decontamination (M01007):

FY19 Base dollars in the amount $36.000 million support the procurement and fielding thirty-five High Mobility Decontamination Systems and forty-two Mass Casualty Decontamination systems that will increase unit and individual survivability.

RADIAC SET AN/PDR 77 (M01280):

FY19 Base dollars in the amount of $32.818M supports the procurement and fielding of the Joint Personal Dosimeter - Individual. This equipment will be used to increase unit and individual survivability.

FY19 Overseas Contingency Operation dollars under Collective Protection in the amount of $2.317 million supports the procurement and fielding of two Chemical Biological Protective Shelter (CBPS) 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.

Exhibit P-40, Budget Line Item Justification: PB 2019 Army		Date: February 2018
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		

Exhibit P-5, Cost Analysis: PB 2019 Army		Date: February 2018
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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Procurement Quantity *(Units in Each)*	26	16	5	14	-	14
Gross/Weapon System Cost *($ in Millions)*	52.166	13.740	7.000	19.136	2.317	21.453
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	52.166	13.740	7.000	19.136	2.317	21.453
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**52.166**	**13.740**	**7.000**	**19.136**	**2.317**	**21.453**
(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)*	2,006.385	858.750	1,400.000	1,366.857	-	1,532.357

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

Cost Elements	Prior Years			FY 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 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)(†)	818.670	21	17.192	927.231	13	12.054	1,193.800	5	5.969	1,044.000	7	7.308	1,044.000	2	2.088	1,044.000	9	9.396
Bed Reinforcement Kit	-	-	-	-	-	-	6.600	5	0.033	-	-	-	-	-	-	-	-	-
Stowage Bay Kit	-	-	-	-	-	-	0.400	5	0.002	-	-	-	-	-	-	-	-	-
CBPS M98 Filter Set	1.344	42	0.056	1.769	26	0.046	1.700	10	0.017	1.833	14	0.026	1.833	4	0.007	1.833	18	0.033
CBPS Handheld Remote Control Radio Device	1.188	21	0.025	2.154	13	0.028	2.400	5	0.012	2.154	7	0.015	2.154	2	0.004	2.111	9	0.019
MTV Frame Fishplate	-	-	-	-	-	-	33.800	5	0.169	-	-	-	-	-	-	-	-	-
CBPS Total Package Fielding (Spares)	95.000	21	1.995	95.000	13	1.235	7.200	5	0.036	98.000	7	0.686	70.000	2	0.140	91.778	9	0.826
M20A1 SCPE	15.860	1,006	15.955	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
JECP Standalone Shelter Large(†)	-	-	-	-	-	-	-	-	-	275.000	36	9.900	-	-	-	275.000	36	9.900
JECP Total Package Fielding	-	-	-	-	-	-	-	-	-	2.770	36	0.100	-	-	-	2.770	36	0.100
CPDEPMEDS	-	-	16.221	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Recurring Cost	-	-	*51.445*	-	-	*13.363*	-	-	*6.238*	-	-	*18.034*	-	-	*2.240*	-	-	*20.274*
Subtotal: Flyaway Cost	**-**	**-**	***51.445***	**-**	**-**	***13.363***	**-**	**-**	***6.238***	**-**	**-**	***18.034***	**-**	**-**	***2.240***	**-**	**-**	***20.274***
Support - Program Management Cost																		

Exhibit P-5, Cost Analysis: PB 2019 Army		Date: February 2018
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 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 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	-	-	-	-	-	-	-	-	-	-	-	0.160	-	-	-	-	-	0.160
Subtotal: Support - Program Management Cost	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***0.160***	**-**	**-**	**-**	**-**	**-**	***0.160***
Support - Staging and Transportation Cost																		
Staging and Transportation	-	-	0.722	-	-	0.377	-	-	0.762	-	-	0.941	-	-	0.078	-	-	1.019
Subtotal: Support - Staging and Transportation Cost	**-**	**-**	***0.722***	**-**	**-**	***0.377***	**-**	**-**	***0.762***	**-**	**-**	***0.941***	**-**	**-**	***0.078***	**-**	**-**	***1.019***
Gross/Weapon System Cost	**2,006.385**	**26**	**52.166**	**858.750**	**16**	**13.740**	**1,400.000**	**5**	**7.000**	**1,366.857**	**14**	**19.136**	**-**	**-**	**2.317**	**1,532.357**	**14**	**21.453**

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Army	Quantity	-	2	7	-	7
	Total Obligation Authority	-	3.000	10.000	2.317	12.317
ANG	Quantity	11	1	4	-	4
	Total Obligation Authority	8.494	2.000	5.136	-	5.136
AR	Quantity	5	2	3	-	3
	Total Obligation Authority	5.246	2.000	4.000	-	4.000
Total: Secondary Distribution	**Quantity**	**16**	**5**	**14**	**-**	**14**
	Total Obligation Authority	**13.740**	**7.000**	**19.136**	**2.317**	**21.453**

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2019 Army		Date: February 2018
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	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
CB Protective Shelter (CBPS)		2016	Pine Bluff Arsenal / Pine Bluff, AR	MIPR	NA	Jan 2016	Jun 2017	21	818.670	Y		
CB Protective Shelter (CBPS)		2017	Pine Bluff Arsenal / Pine Bluff, AR	MIPR	N/A	Jan 2017	Feb 2018	13	927.230	Y		
CB Protective Shelter (CBPS)		2018	Pine Bluff Arsenal / Pine Bluff, AR	MIPR	N/A	Jan 2018	Apr 2019	5	1,193.800	Y		
CB Protective Shelter (CBPS)(†)		2019	Pine Bluff Arsenal / Pine Bluff, AR	MIPR	N/A	Jan 2019	Apr 2020	9	1,044.000	Y		
JECP Standalone Shelter Large(†)		2019	TBD / UNKNOWN	C / FFP	Unknown	Jan 2019	Aug 2019	36	275.000	Y		

(†) indicates the presence of a P-21

Exhibit P-21, Production Schedule: PB 2019 Army		Date: February 2018
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 (Units in Each)							Fiscal Year 2016												Fiscal Year 2017												BALANCE
										Calendar Year 2016														Calendar Year 2017									
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2015	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
CB Protective Shelter (CBPS)																															
	1	2019	ARMY	9	0	9																									9
JECP Standalone Shelter Large																															
	2	2019	ARMY	36	0	36																									36
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2019 Army		Date: February 2018
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 (Units in Each)							Fiscal Year 2018												Fiscal Year 2019										BALANCE
										Calendar Year 2018														Calendar Year 2019										
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2017	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
CB Protective Shelter (CBPS)																														
	1	2019	ARMY	9	0	9																A	-	-	-	-	-	-	-	-	9
JECP Standalone Shelter Large																														
	2	2019	ARMY	36	0	36																A	-	-	-	-	-	-	5	5	26
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2019 Army		Date: February 2018
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 (Units in Each)							Fiscal Year 2020												Fiscal Year 2021												BALANCE
										Calendar Year 2020														Calendar Year 2021									
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2019	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
CB Protective Shelter (CBPS)																															
	1	2019	ARMY	9	0	9	-	-	-	-	-	-	5	4																	0
JECP Standalone Shelter Large																															
	2	2019	ARMY	36	10	26	5	5	5	5	5	1																			0
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2019 Army		Date: February 2018
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)

MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Month)			Procurement Leadtime (Months)							
					Initial				Reorder			
		MSR For 2019	1-8-5 For 2019	MAX For 2019	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, AR	1	5	5	0	3	17	20	0	3	15	18
2	TBD - UNKNOWN	5	20	45	2	3	5	8	0	3	7	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).

Exhibit P-5, Cost Analysis: PB 2019 Army		Date: February 2018
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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	4.267	-	-	36.000	-	36.000
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	4.267	-	-	36.000	-	36.000
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**4.267**	**-**	**-**	**36.000**	**-**	**36.000**
(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)*	-	-	-	-	-	-

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

Cost Elements	Prior Years			FY 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 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 Casualty Decontamination (MCD)(†)	-	-	-	-	-	-	-	-	-	274.334	42	11.522	-	-	-	274.334	42	11.522
High Mobility Decontamination System (HMDS)(†)	-	-	-	-	-	-	-	-	-	500.000	35	17.500	-	-	-	500.000	35	17.500
Subtotal: Recurring Cost	-	-	-	-	-	-	-	-	-	-	-	*29.022*	-	-	-	-	-	*29.022*
Subtotal: Flyaway Cost	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***29.022***	**-**	**-**	**-**	**-**	**-**	***29.022***
Package Fielding Cost																		
Recurring Cost																		
MCD Total Package Fielding	-	-	-	-	-	-	-	-	-	-	-	2.478	-	-	-	-	-	2.478
HMDS Total Package Fielding	-	-	-	-	-	-	-	-	-	-	-	1.750	-	-	-	-	-	1.750
Subtotal: Recurring Cost	-	-	-	-	-	-	-	-	-	-	-	*4.228*	-	-	-	-	-	*4.228*
Subtotal: Package Fielding Cost	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***4.228***	**-**	**-**	**-**	**-**	**-**	***4.228***
Support - Contractor Logistics Support (CLS) Cost																		
Oversight	-	-	4.267	-	-	-	-	-	-	-	-	2.750	-	-	-	-	-	2.750

Exhibit P-5, Cost Analysis: PB 2019 Army		Date: February 2018
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 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 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)
Subtotal: Support - Contractor Logistics Support (CLS) Cost	-	-	***4.267***	-	-	-	-	-	-	-	-	***2.750***	-	-	-	-	-	***2.750***
Gross/Weapon System Cost	-	-	**4.267**	-	-	-	-	-	-	-	-	**36.000**	-	-	-	-	-	**36.000**

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Army	Quantity	-	-	-	-	-
	Total Obligation Authority	-	-	36.000	-	36.000
Total: Secondary Distribution	**Quantity**	**-**	**-**	**-**	**-**	**-**
	Total Obligation Authority	**-**	**-**	**36.000**	**-**	**36.000**

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2019 Army		Date: February 2018
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	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
Mass Casualty Decontamination (MCD)(†)		2019	Karcher / Blackwood, New Jersey	PO	Picatinny Arsenal	Dec 2018	Jan 2019	9	274.330	Y		
Mass Casualty Decontamination (MCD)(†)		2019	Airboss / Landover, Maryland	PO	Picatinny Arsenal	Dec 2018	Jan 2019	31	274.330	Y		
Mass Casualty Decontamination (MCD)(†)		2019	UTS / Ft. Walton Beach, Florida	PO	Picatinny Arsenal	Dec 2018	Jan 2019	2	274.330	Y		
High Mobility Decontamination System (HMDS)(†)		2019	Intelagard / Lafayette, Colorado	PO	Picatinny Arsenal	Dec 2018	Apr 2019	35	500.000	Y		

(†) indicates the presence of a P-21

Exhibit P-21, Production Schedule: PB 2019 Army		Date: February 2018
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 (Units in Each)							Fiscal Year 2019												Fiscal Year 2020												BALANCE
							Calendar Year 2019												Calendar Year 2020													
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2018	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
Mass Casualty Decontamination (MCD)																															
	1	2019	ARMY	9	0	9			A -	3	3	3																			0
	2	2019	ARMY	31	0	31			A -	3	3	3	3	3	3	3	3	3	3	1											0
	3	2019	ARMY	2	0	2			A -	2																					0
High Mobility Decontamination System (HMDS)																															
	4	2019	ARMY	35	0	35			A -	-	-	-	10	10	10	5															0
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2019 Army		Date: February 2018
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)

MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Month)			Procurement Leadtime (Months)							
					Initial				Reorder			
		MSR For 2019	1-8-5 For 2019	MAX For 2019	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	Karcher - Blackwood, New Jersey	1	3	3	6	2	1	3	0	2	1	3
2	Airboss - Landover, Maryland	1	3	3	6	2	1	3	0	2	1	3
3	UTS - Ft. Walton Beach, Florida	1	2	2	6	2	1	3	0	2	1	3
4	Intelagard - Lafayette, Colorado	1	10	20	8	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).

Exhibit P-5, Cost Analysis: PB 2019 Army		Date: February 2018
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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Procurement Quantity *(Units in Each)*	-	8,759	7,477	69	-	69
Gross/Weapon System Cost *($ in Millions)*	141.919	3.564	1.610	86.000	-	86.000
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	141.919	3.564	1.610	86.000	-	86.000
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**141.919**	**3.564**	**1.610**	**86.000**	**-**	**86.000**
(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)*	-	0.407	0.215	1,246.377	-	1,246.377

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

Cost Elements	Prior Years			FY 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 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	5,151	1.720	0.334	4,820	1.610	-	-	-	-	-	-	-	-	-
Com Adapter(†)	5.905	10,030	59.231	4.611	162	0.747	-	-	-	-	-	-	-	-	-	-	-	-
JCAD(†)	7.417	11,149	82.688	6.753	162	1.094	-	-	-	-	-	-	-	-	-	-	-	-
FY 17 OCO	-	-	-	-	-	0.003	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Recurring Cost	-	-	*141.919*	-	-	*3.564*	-	-	*1.610*	-	-	-	-	-	-	-	-	-
Subtotal: Flyaway Cost	**-**	**-**	***141.919***	**-**	**-**	***3.564***	**-**	**-**	***1.610***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Hardware Cost																		
Recurring Cost																		
CBRN Robotic(†)	-	-	-	-	-	-	-	-	-	702.357	28	19.666	-	-	-	702.357	28	19.666
MRDS(†)	-	-	-	-	-	-	-	-	-	918.000	11	10.098	-	-	-	918.000	11	10.098
Subtotal: Recurring Cost	-	-	-	-	-	-	-	-	-	-	-	*29.764*	-	-	-	-	-	*29.764*
Non Recurring Cost																		
Integrated Early Warning	-	-	-	-	-	-	-	-	-	-	-	40.000	-	-	-	-	-	40.000
PINS	-	-	-	-	-	-	-	-	-	354.167	12	4.250	-	-	-	354.167	12	4.250
RAZORS	-	-	-	-	-	-	-	-	-	40.625	80	3.250	-	-	-	40.625	80	3.250
HAPSITE	-	-	-	-	-	-	-	-	-	203.125	16	3.250	-	-	-	203.125	16	3.250
Subtotal: Non Recurring Cost	-	-	-	-	-	-	-	-	-	-	-	*50.750*	-	-	-	-	-	*50.750*

Exhibit P-5, Cost Analysis: PB 2019 Army		Date: February 2018
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 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 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)
Subtotal: Hardware Cost	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***80.514***	**-**	**-**	**-**	**-**	**-**	***80.514***
Package Fielding Cost																		
Recurring Cost																		
MRDS	-	-	-	-	-	-	-	-	-	27.455	11	0.302	-	-	-	27.455	11	0.302
Subtotal: Recurring Cost	-	-	-	-	-	-	-	-	-	-	-	*0.302*	-	-	-	-	-	*0.302*
Non Recurring Cost																		
Fielding Labor for CBRN Robotics	-	-	-	-	-	-	-	-	-	-	-	2.934	-	-	-	-	-	2.934
Fielding for PINS Integration	-	-	-	-	-	-	-	-	-	-	-	0.750	-	-	-	-	-	0.750
Fielding for RAZOR Integration	-	-	-	-	-	-	-	-	-	-	-	0.750	-	-	-	-	-	0.750
Fielding for HAPSITE Integration	-	-	-	-	-	-	-	-	-	-	-	0.750	-	-	-	-	-	0.750
Subtotal: Non Recurring Cost	-	-	-	-	-	-	-	-	-	-	-	*5.184*	-	-	-	-	-	*5.184*
Subtotal: Package Fielding Cost	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***5.486***	**-**	**-**	**-**	**-**	**-**	***5.486***
Gross/Weapon System Cost	**-**	**-**	**141.919**	**0.407**	**8,759**	**3.564**	**0.215**	**7,477**	**1.610**	**1,246.377**	**69**	**86.000**	**-**	**-**	**-**	**1,246.377**	**69**	**86.000**

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Army	Quantity	4,904	4,378	69	-	69
	Total Obligation Authority	2.285	0.942	86.000	-	86.000
ANG	Quantity	3,099	3,099	-	-	-
	Total Obligation Authority	0.684	0.668	-	-	-
AR	Quantity	756	-	-	-	-
	Total Obligation Authority	0.595	-	-	-	-
Total: Secondary Distribution	**Quantity**	**8,759**	**7,477**	**69**	**-**	**69**
	Total Obligation Authority	**3.564**	**1.610**	**86.000**	**-**	**86.000**

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2019 Army		Date: February 2018
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	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
CRESS Kits		2018	Pine Bluff Arsenal / Pine Bluff, AK	MIPR	Pine Bluff Arsenal	Feb 2018	Mar 2018	4,820	0.334	N		
Com Adapter		2017	Smith Detection / Edgewood, MD	C / FFP	APG Edgewood Contracting	Mar 2017	Nov 2017	162	4.610	N		
JCAD		2017	Smith Detection / Edgewood, MD	C / FFP	APG Edgewood Contracting	Mar 2017	Nov 2017	162	6.750	N		
CBRN Robotic(†)		2019	Qinetiq / Walthum, MA	MIPR	Walthum, MA	Jan 2019	Jun 2019	28	702.360	N		
MRDS(†)		2019	TBD / TBD	C / FFP	Edgewood, MD	Jun 2019	Sep 2019	11	918.000	N		

(†) indicates the presence of a P-21

Exhibit P-21, Production Schedule: PB 2019 Army		Date: February 2018
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 (Units in Each)							Fiscal Year 2017												Fiscal Year 2018												BALANCE
										Calendar Year 2017														Calendar Year 2018									
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2016	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
CBRN Robotic																															
	1	2019	ARMY	28	0	28																									28
MRDS																															
	2	2019	ARMY	11	0	11																									11
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2019 Army		Date: February 2018
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 (Units in Each)							Fiscal Year 2019												Fiscal Year 2020												BALANCE
										Calendar Year 2019														Calendar Year 2020									
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2018	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
CBRN Robotic																															
	1	2019	ARMY	28	0	28				A -	-	-	-	-	5	6	6	6	5												0
MRDS																															
	2	2019	ARMY	11	0	11									A -	-	-	11													0
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP		

Exhibit P-21, Production Schedule: PB 2019 Army		Date: February 2018
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)							
					Initial				Reorder			
		MSR For 2019	1-8-5 For 2019	MAX For 2019	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 - Walthum, MA	1	5	6	0	0	0	0	0	0	0	0
2	TBD - TBD	1	15	30	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).

Exhibit P-5, Cost Analysis: PB 2019 Army		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 10	**P-1 Line Item Number / Title:** 4516M01001 / CBRN Defense	**Item Number / Title [DODIC]:** M01011 / CBRNE WMD - Elimination
ID Code (A=Service Ready, B=Not Service Ready) :		**MDAP/MAIS Code:**

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Procurement Quantity *(Units in Each)*	24,885	9,021	1,786	-	-	-
Gross/Weapon System Cost *($ in Millions)*	47.160	2.459	2.500	-	-	-
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	47.160	2.459	2.500	-	-	-
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**47.160**	**2.459**	**2.500**	**-**	**-**	**-**
(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)*	1.895	0.273	1.400	-	-	-

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

Cost Elements	Prior Years			FY 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 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																		
PPE Suit NFPA Class 2(†)	22.195	1,075	23.860	-	-	-	2.065	682	1.408	-	-	-	-	-	-	-	-	-
PPE Suit NFPA Class 3(†)	10.713	2,175	23.301	0.625	3,025	1.891	0.665	1,112	0.740	-	-	-	-	-	-	-	-	-
HAZMAT Boots(†)	-	-	-	0.065	2,888	0.188	0.084	2,500	0.210	-	-	-	-	-	-	-	-	-
Filter Canisters(†)	-	-	-	0.045	5,500	0.248	0.043	3,315	0.144	-	-	-	-	-	-	-	-	-
Subtotal: Non Recurring Cost	-	-	*47.160*	-	-	*2.326*	-	-	*2.500*	-	-	-	-	-	-	-	-	-
Subtotal: Flyaway Cost	**-**	**-**	***47.160***	**-**	**-**	***2.326***	**-**	**-**	***2.500***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Support - Program Management Cost																		
Government Management	-	-	-	-	-	0.132	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Support - Program Management Cost	**-**	**-**	**-**	**-**	**-**	***0.132***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Gross/Weapon System Cost	**1.895**	**24,885**	**47.160**	**0.273**	**9,021**	**2.459**	**1.400**	**1,786**	**2.500**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Army	Quantity	9,021	1,786	-	-	-
	Total Obligation Authority	2.459	2.500	-	-	-

Exhibit P-5, Cost Analysis: PB 2019 Army		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 10	P-1 Line Item Number / Title: 4516M01001 / CBRN Defense	Item Number / Title [DODIC]: M01011 / CBRNE WMD - Elimination
ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:	

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Total: Secondary Distribution	Quantity	9,021	1,786	-	-	-
	Total Obligation Authority	2.459	2.500	-	-	-

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2019 Army		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 10	P-1 Line Item Number / Title: 4516M01001 / CBRN Defense	Item Number / Title [DODIC]: M01011 / CBRNE WMD - Elimination

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
PPE Suit NFPA Class 2		2018	Veterans Corp / Fairfax	C / FP	Aberdeen Proving Ground, MD	Feb 2018	May 2018	682	2.070	Y		
PPE Suit NFPA Class 3		2017	Veterans Corp / Fairfax	C / FP	Aberdeen Proving Ground, MD	Aug 2017	Sep 2018	3,025	0.630	Y		
PPE Suit NFPA Class 3		2018	Veterans Corp / Fairfax	C / FP	Aberdeen Proving Ground, MD	Feb 2018	May 2018	1,112	0.670	Y		
HAZMAT Boots		2017	Veterans Corp / Fairfax	C / FP	Aberdeen Proving Ground, MD	Aug 2017	Sep 2018	2,888	0.070	Y		
HAZMAT Boots		2018	Veterans Corp / Fairfax	C / FP	Aberdeen Proving Ground, MD	Feb 2018	May 2018	2,500	0.080	Y		
Filter Canisters		2017	Veterans Corp / Fairfax	C / FP	Aberdeen Proving Ground, MD	Aug 2017	Sep 2018	5,500	0.050	Y		
Filter Canisters		2018	Veterans Corp / Fairfax	C / FP	Aberdeen Proving Ground, MD	Feb 2018	May 2018	3,315	0.040	Y		

Exhibit P-5, Cost Analysis: PB 2019 Army		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 10	**P-1 Line Item Number / Title:** 4516M01001 / CBRN Defense	**Item Number / Title [DODIC]:** M01280 / RADIAC SET AN/PDR 77()
ID Code (A=Service Ready, B=Not Service Ready) :		**MDAP/MAIS Code:**

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Procurement Quantity *(Units in Each)*	-	-	-	186	-	186
Gross/Weapon System Cost *($ in Millions)*	1.529	-	-	32.818	-	32.818
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	1.529	-	-	32.818	-	32.818
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**1.529**	**-**	**-**	**32.818**	**-**	**32.818**
(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)*	-	-	-	176.441	-	176.441

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

Cost Elements	Prior Years			FY 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 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	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Radiological Detection System Hardware	-	-	-	-	-	-	-	-	-	19.993	1,482	29.630	-	-	-	19.993	1,482	29.630
Subtotal: Recurring Cost	-	-	*1.529*	-	-	-	-	-	-	-	-	*29.630*	-	-	-	-	-	*29.630*
Subtotal: Flyaway Cost	**-**	**-**	***1.529***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***29.630***	**-**	**-**	**-**	**-**	**-**	***29.630***
Support - Program Management Cost																		
Government Management	-	-	-	-	-	-	-	-	-	-	-	3.188	-	-	-	-	-	3.188
Subtotal: Support - Program Management Cost	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***3.188***	**-**	**-**	**-**	**-**	**-**	***3.188***
Gross/Weapon System Cost	**-**	**-**	**1.529**	**-**	**-**	**-**	**-**	**-**	**-**	**176.441**	**186**	**32.818**	**-**	**-**	**-**	**176.441**	**186**	**32.818**

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Army	Quantity	-	-	186	-	186
	Total Obligation Authority	-	-	32.818	-	32.818
Total:	**Quantity**	**-**	**-**	**186**	**-**	**186**

Exhibit P-5, Cost Analysis: PB 2019 Army		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 10	P-1 Line Item Number / Title: 4516M01001 / CBRN Defense	Item Number / Title [DODIC]: M01280 / RADIAC SET AN/PDR 77()
ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:	

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Secondary Distribution	Total Obligation Authority	-	-	32.818	-	32.818

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2019 Army		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 10	P-1 Line Item Number / Title: 4516M01001 / CBRN Defense	Item Number / Title [DODIC]: M01280 / RADIAC SET AN/PDR 77()

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
AN/PDR-77 Hardware		2007	Canberra Dover / Dover NJ	C / FFP	CELCMC, FT Monmouth, NJ	Jan 2007	Apr 2007	0	6.000			
AN/PDR-77 Hardware		2008	Canberra Dover / Dover NJ	C / FFP	CELCMC, FT Monmouth, NJ	Dec 2007	Aug 2008	0	7.000			
AN/PDR-77 Hardware		2019	TBD / TBD	C / FPIF	ACC-APG, APG, MD	Feb 2019	May 2019	0	0.000	N		Aug 2018

Exhibit P-5, Cost Analysis: PB 2019 Army		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 10	**P-1 Line Item Number / Title:** 4516M01001 / CBRN Defense	**Item Number / Title [DODIC]:** M99001 / INDIVIDUAL PROTECTION (IP)
ID Code (A=Service Ready, B=Not Service Ready) :		**MDAP/MAIS Code:**

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	17.602	27.980	-	-	-	-
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	17.602	27.980	-	-	-	-
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**17.602**	**27.980**	**-**	**-**	**-**	**-**
(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 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 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																		
M40A1	0.323	18,314	5.914	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Engineering Support 1	-	-	0.352	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
M42A2	0.269	36,271	9.765	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
M42A2 (ANG)	0.383	2,146	0.821	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
M42A2 (AR)	0.395	172	0.068	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Engineering Support 2	-	-	0.688	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
JSLIST Ensembles / IPE(†)	-	-	-	0.625	40,000	25.000	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Non Recurring Cost	-	-	*17.602*	-	-	*25.000*	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Hardware Cost	**-**	**-**	***17.602***	**-**	**-**	***25.000***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Support - Program Management Cost																		
Government Management	-	-	-	-	-	2.980	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Support - Program Management Cost	**-**	**-**	**-**	**-**	**-**	***2.980***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Gross/Weapon System Cost	**-**	**-**	**17.602**	**-**	**-**	**27.980**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**

Exhibit P-5, Cost Analysis: PB 2019 Army		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 10	**P-1 Line Item Number / Title:** 4516M01001 / CBRN Defense	**Item Number / Title [DODIC]:** M99001 / INDIVIDUAL PROTECTION (IP)

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

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Army	Quantity	-	-	-	-	-
	Total Obligation Authority	27.980	-	-	-	-
Total: Secondary Distribution	**Quantity**	**-**	**-**	**-**	**-**	**-**
	Total Obligation Authority	**27.980**	**-**	**-**	**-**	**-**

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2019 Army		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 10	P-1 Line Item Number / Title: 4516M01001 / CBRN Defense	Item Number / Title [DODIC]: M99001 / INDIVIDUAL PROTECTION (IP)

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
JSLIST Ensembles / IPE		2017	DLA Troop Support / PA	C / IDIQ	FT Belvoir VA	Jul 2017	Sep 2017	40,000	0.630	Y		

Exhibit P-40, Budget Line Item Justification: PB 2019 Army	Date: February 2018
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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	8	2	28	-	28	11	2	2	2	-	55
Gross/Weapon System Cost *($ in Millions)*	847.707	37.500	16.610	98.229	-	98.229	60.574	10.559	10.547	10.533	-	1,092.259
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	847.707	37.500	16.610	98.229	-	98.229	60.574	10.559	10.547	10.533	-	1,092.259
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**847.707**	**37.500**	**16.610**	**98.229**	**-**	**98.229**	**60.574**	**10.559**	**10.547**	**10.533**	**-**	**1,092.259**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost *($ in Thousands)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Thousands)*	-	4,687.500	8,305.000	3,508.179	-	3,508.179	5,506.727	5,279.500	5,273.500	5,266.500	-	19,859.255

Description:

The Line of Communication Bridge (LOCB) system provides a 50 meter dry gap crossing capability and a 280 meter wet gap crossing capability to the Multi-Role Bridge Company (MRBC). The LOCB is designed to support equipment up to Military Load Class (MLC) 100 tracked, 120 wheeled (normal crossing) and 120 tracked, 150 wheeled (caution crossing). The LOCB has a roadway width of 4.5 meters. Each 50 meter fixed LOCB system consists of girder beams, cross bracing, decking, guard rails, erection and anchorage sets, tools and all associated hardware, and will come with a ramp set, 5 meter pier, and ground beams. Pedestrian walkways are available. The 280 meter float LOCB system will consist of the same bridge hardware as the 50 meter LOCB and will include additional items to support wet-gap crossing, including pontoons and associated equipment. One 50 meter fixed LOCB will be fielded per MRBC. Forty 50 meter fixed LOCBs and five 280 meter float LOCBs will be located in Army Prepositioned Stock (APS) for rapid deployment to the theater of operations. The U.S. Army Engineering School will have an additional six 50 meter fixed LOCBs and two 130 meter float LOCBs for training. The Milestone Decision Authority (MDA) is assessing the impacts of a potential Directed Requirement (DR) that would increase the LOCB MLC and if the new requirements would be best met through the industrial base or via commercial vendors.

Commercial panel-truss bridge systems provide the capability to span dry and wet gaps for Military Load Classification (MLC) 80 Tracked / 110 Wheeled vehicle crossings. It is deployed as a semi-permanent bridge to restore and maintain lines of communication routes for heavy volumes of civilian and military traffic. Requirements are in draft to support bridging requirement for combatant command contingency plan.

LOCB Army Acquisition Objective (AAO): 79

The Dry Support Bridge (DSB) is a mobile, rapidly erected, modular military bridging system used by the MRBC. The 40 Meter DSB can span a 40-meter gap or two 20-meter gaps. The 46 Meter DSB can span a 46-meter gap or two 28-meter gaps (with the 46-meter upgrade). Both have a crossing capability of MLC 100 Wheeled/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 DSB will support the Joint Force Commander's ability to employ and sustain forces throughout the global battle space.

DSB AAO: 112

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023
Army	Quantity	8	2	28	-	28	11	2	1	-
	Total Obligation Authority	37.500	16.610	98.229	-	98.229	60.574	10.559	5.273	-

Exhibit P-40, Budget Line Item Justification: PB 2019 Army		Date: February 2018
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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023
ANG	Quantity	-	-	-	-	-	-	-	1	1
	Total Obligation Authority	-	-	-	-	-	-	-	5.274	5.266
AR	Quantity	-	-	-	-	-	-	-	-	1
	Total Obligation Authority	-	-	-	-	-	-	-	-	5.267
Total: Secondary Distribution	**Quantity**	**8**	**2**	**28**	**-**	**28**	**11**	**2**	**2**	**2**
	Total Obligation Authority	**37.500**	**16.610**	**98.229**	**-**	**98.229**	**60.574**	**10.559**	**10.547**	**10.533**

Exhibit P-40, Budget Line Item Justification: PB 2019 Army	Date: February 2018
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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 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	G82400 / DRY SUPPORT BRIDGE	P-5a	A		- / 793.473	8 / 26.000	- / -	- / -	- / -	- / -
P-5	G82404 / LINE OF COMMUNICATION BRIDGE LOCB	P-5a, P-21			- / 54.234	- / 11.500	2 / 16.610	28 / 98.229	- / -	28 / 98.229
P-40	**Total Gross/Weapon System Cost**				**- / 847.707**	**8 / 37.500**	**2 / 16.610**	**28 / 98.229**	**- / -**	**28 / 98.229**

*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 19 Base procurement dollars in the amount of $98.229 million support the procurement of 2 Low Rate Initial Production (LRIP) LOCB system produced at Rock Island Arsenal and 26 commercial dry and wet gap panel-truss bridge systems. The HQDA staff is reviewing a potential Directed Requirement (DR) that would increase the LOCB MLC. The Milestone Decision Authority (MDA) is planning for a Decision Point in 2QFY18 to determine the cost, schedule, performance and risk implications of the potential DR and to decide whether the current Rock Island Arsenal (RIA) Industrial Base material solution or a commercial produced solution is the best approach to meet LOCB these requirements. The LOCB system provides the United States Army with an enhanced support bridging capability to replace the obsolete, 1940s era Bailey Bridge (BB). IAW Section 1815 of the FY 2008 National Defense Authorization Act (P.L. 110-181), this item is necessary for use by the active components and reserve components of the Armed Forces for homeland defense missions, domestic emergency responses, and providing military support to civil authorities. The commercial panel-truss bridge system provides interim LOCB capability for current and emerging operational requirements.

Exhibit P-5, Cost Analysis: PB 2019 Army		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 15	**P-1 Line Item Number / Title:** 2831MX0100 / Tactical Bridging	**Item Number / Title [DODIC]:** G82400 / DRY SUPPORT BRIDGE
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Procurement Quantity *(Units in Each)*	-	8	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	793.473	26.000	-	-	-	-
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	793.473	26.000	-	-	-	-
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**793.473**	**26.000**	**-**	**-**	**-**	**-**
(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)*	-	3,250.000	-	-	-	-

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

Cost Elements	Prior Years			FY 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 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. Bridge/Launcher-Base(†)	-	-	678.473	5,500.000	4	22.000	-	-	-	-	-	-	-	-	-	-	-	-
Data	-	-	15.000	-	-	0.500	-	-	-	-	-	-	-	-	-	-	-	-
Fielding	-	-	20.000	-	-	2.000	-	-	-	-	-	-	-	-	-	-	-	-
System Engineering/ Program Management	-	-	80.000	-	-	1.500	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Recurring Cost	-	-	*793.473*	-	-	*26.000*	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Flyaway Cost	**-**	**-**	***793.473***	**-**	**-**	***26.000***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Gross/Weapon System Cost	**-**	**-**	**793.473**	**3,250.000**	**8**	**26.000**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Army	Quantity	8	-	-	-	-
	Total Obligation Authority	26.000	-	-	-	-
Total: Secondary Distribution	**Quantity**	**8**	**-**	**-**	**-**	**-**
	Total Obligation Authority	**26.000**	**-**	**-**	**-**	**-**

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2019 Army		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 15	P-1 Line Item Number / Title: 2831MX0100 / Tactical Bridging	Item Number / Title [DODIC]: G82400 / DRY SUPPORT BRIDGE

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
1. Bridge/Launcher-Base		2017	WFEL / Stockport	SS / FFP	TACOM, Warren, MI	Apr 2017	Apr 2018	4	5,500.000	Y		

Remarks:
The Dry Support Bridge (DSB) is a mobile, rapidly erected, modular military bridging system used by the MRBC. The 40 Meter DSB can span a 40-meter gap or two 20-meter gaps. The 46 Meter DSB can span a 46-meter gap or two 28-meter gaps (with the 46-meter upgrade). Both have a crossing capability of MLC 100 Wheeled/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 DSB will support the Joint Force Commander's ability to employ and sustain forces throughout the global battle space.

Exhibit P-5, Cost Analysis: PB 2019 Army		Date: February 2018
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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Procurement Quantity *(Units in Each)*	-	-	2	28	-	28
Gross/Weapon System Cost *($ in Millions)*	54.234	11.500	16.610	98.229	-	98.229
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	54.234	11.500	16.610	98.229	-	98.229
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**54.234**	**11.500**	**16.610**	**98.229**	**-**	**98.229**
(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)*	-	-	8,305.000	3,508.179	-	3,508.179

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

Cost Elements	Prior Years			FY 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 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. Fixed Bridge(†)	-	-	41.120	-	-	-	4,973.500	2	9.947	5,023.000	2	10.046	-	-	-	5,023.000	2	10.046
2. M3 Container Roll-In/Out Platform	-	-	1.000	-	-	-	8.154	52	0.424	8.154	52	0.424	-	-	-	8.154	52	0.424
System Engineering/ Program Management	-	-	5.614	-	-	1.500	-	-	1.600	-	-	2.140	-	-	-	-	-	2.140
Engineering Changes	-	-	6.500	-	-	-	-	-	1.639	-	-	0.201	-	-	-	-	-	0.201
Commercial Dry Gap(†)	-	-	-	-	-	-	-	-	-	975.571	14	13.658	-	-	-	975.571	14	13.658
Commercial Wet Gap(†)	-	-	-	-	-	-	-	-	-	4,687.500	12	56.250	-	-	-	4,687.500	12	56.250
Fielding	-	-	-	-	-	-	-	-	-	-	-	10.509	-	-	-	-	-	10.509
Subtotal: Recurring Cost	-	-	*54.234*	-	-	*1.500*	-	-	*13.610*	-	-	*93.228*	-	-	-	-	-	*93.228*
Non Recurring Cost																		
Start Up Tooling/ Fixtures	-	-	-	-	-	-	-	-	1.500	-	-	-	-	-	-	-	-	-
Logistics Parts/ Products	-	-	-	-	-	-	-	-	1.500	-	-	5.000	-	-	-	-	-	5.000
Other	-	-	-	-	-	10.000	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Non Recurring Cost	-	-	-	-	-	*10.000*	-	-	*3.000*	-	-	*5.000*	-	-	-	-	-	*5.000*
Subtotal: Flyaway Cost	**-**	**-**	***54.234***	**-**	**-**	***11.500***	**-**	**-**	***16.610***	**-**	**-**	***98.228***	**-**	**-**	**-**	**-**	**-**	***98.228***

Exhibit P-5, Cost Analysis: PB 2019 Army		Date: February 2018
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 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 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	-	-	54.234	-	-	11.500	8,305.000	2	16.610	3,508.179	28	98.229	-	-	-	3,508.179	28	98.229

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Army	Quantity	-	2	28	-	28
	Total Obligation Authority	11.500	16.610	98.229	-	98.229
Total: Secondary Distribution	**Quantity**	**-**	**2**	**28**	**-**	**28**
	Total Obligation Authority	**11.500**	**16.610**	**98.229**	**-**	**98.229**

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2019 Army		Date: February 2018
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	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
1. Fixed Bridge(†)		2018	Rock Island Arsenal / Rock Island	MIPR	TACOM, Warren, MI	Apr 2018	Apr 2019	2	4,973.500	N		
1. Fixed Bridge(†)		2019	Rock Island Arsenal / Rock Island	MIPR	TACOM, Warren, MI	Apr 2019	Apr 2020	2	5,023.000	N		
Commercial Dry Gap(†)		2019	TBD / TBD	C / FFP	TACOM, Warren, MI	Aug 2019	Oct 2019	14	975.570			
Commercial Wet Gap(†)		2019	TBD / TBD	C / FFP	TACOM, Warren, MI	Aug 2019	Dec 2019	12	4,687.500			

(†) indicates the presence of a P-21

Remarks:
Production to be completed pending MS C decision

Exhibit P-21, Production Schedule: PB 2019 Army		Date: February 2018
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 (Units in Each)							Fiscal Year 2018												Fiscal Year 2019											BALANCE
										Calendar Year 2018														Calendar Year 2019							
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2017	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
1. Fixed Bridge																														
	1	2018	ARMY	2	0	2							A -	-	-	-	-	-	-	-	-	-	-	-	1	-	1				0
	1	2019	ARMY	2	0	2																			A -	-	-	-	-	-	2
Commercial Dry Gap																														
	2	2019	ARMY	14	0	14																							A -	-	14
Commercial Wet Gap																														
	3	2019	ARMY	12	0	12																							A -	-	12
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2019 Army		Date: February 2018
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 (Units in Each)							Fiscal Year 2020												Fiscal Year 2021												BALANCE
										Calendar Year 2020														Calendar Year 2021									
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2019	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
1. Fixed Bridge																															
	1	2018	ARMY	2	2	0																									0
	1	2019	ARMY	2	0	2	-	-	-	-	-	-	1	-	-	-	-	1													0
Commercial Dry Gap																															
	2	2019	ARMY	14	0	14	5	5	4																						0
Commercial Wet Gap																															
	3	2019	ARMY	12	0	12	-	-	3	3	3	3																			0
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2019 Army		Date: February 2018
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)							
					Initial				Reorder			
		MSR For 2019	1-8-5 For 2019	MAX For 2019	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	Rock Island Arsenal - Rock Island	1	2	4	0	4	6	10	0	4	6	10
2	TBD - TBD	1	2	5	0	0	0	0	0	0	0	0
3	TBD - TBD	1	2	5	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).

Exhibit P-40, Budget Line Item Justification: PB 2019 Army	Date: February 2018
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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	27	33	24	78	-	78	76	87	99	100	-	524
Gross/Weapon System Cost *($ in Millions)*	174.353	27.297	21.761	64.438	-	64.438	62.078	72.157	83.048	85.395	-	590.527
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	174.353	27.297	21.761	64.438	-	64.438	62.078	72.157	83.048	85.395	-	590.527
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**174.353**	**27.297**	**21.761**	**64.438**	**-**	**64.438**	**62.078**	**72.157**	**83.048**	**85.395**	**-**	**590.527**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost *($ in Thousands)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Thousands)*	6,457.519	827.182	906.708	826.128	-	826.128	816.816	829.391	838.869	853.950	-	1,126.960

Description:

The Tactical Float Ribbon Bridge line supports the Multi-Role Bridge Company (MRBC). One Tactical Float Ribbon Bridge System consists of the Improved Ribbon Bridge (IRB) bays (30 Interior and 12 Ramp), 14 Propulsion Bridge Erection Boats (BEB) and 56 Common Bridge Transporters (CBT). These components are required to transport, launch, erect and retrieve up to 210 meters of floating bridge. The IRB has a Military Load Class (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 Army plans to have 25 MRBCs.

AAO BEB: 393
APO BEB: 435

AAO IRB Interior Bays: 1128
AAO IRB Ramp Bays: 454

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023
Army	Quantity	-	11	-	-	-	-	2	12	14
	Total Obligation Authority	-	10.057	-	-	-	-	1.660	10.067	11.955
ANG	Quantity	17	-	38	-	38	42	43	59	58
	Total Obligation Authority	14.062	-	31.479	-	31.479	34.306	35.663	49.493	49.529
AR	Quantity	16	13	40	-	40	34	42	28	28
	Total Obligation Authority	13.235	11.704	32.959	-	32.959	27.772	34.834	23.488	23.911
Total: Secondary Distribution	**Quantity**	**33**	**24**	**78**	**-**	**78**	**76**	**87**	**99**	**100**
	Total Obligation Authority	**27.297**	**21.761**	**64.438**	**-**	**64.438**	**62.078**	**72.157**	**83.048**	**85.395**

Exhibit P-40, Budget Line Item Justification: PB 2019 Army	Date: February 2018
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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 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		27 / 174.353	33 / 27.297	24 / 21.761	78 / 64.438	- / -	78 / 64.438
P-40	**Total Gross/Weapon System Cost**				**27 / 174.353**	**33 / 27.297**	**24 / 21.761**	**78 / 64.438**	**- / -**	**78 / 64.438**

*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 2019 Base procurement dollars in the amount of $64.438 million supports the procurement of 78 Propulsion Bridge Erection Boats (BEB) for Army National Guard and Army Reserve requirements. 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.

Exhibit P-5, Cost Analysis: PB 2019 Army		Date: February 2018
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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Procurement Quantity *(Units in Each)*	27	33	24	78	-	78
Gross/Weapon System Cost *($ in Millions)*	174.353	27.297	21.761	64.438	-	64.438
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	174.353	27.297	21.761	64.438	-	64.438
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**174.353**	**27.297**	**21.761**	**64.438**	**-**	**64.438**
(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)*	6,457.519	827.182	906.708	826.128	-	826.128

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

Cost Elements	Prior Years			FY 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 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(†)	5,325.889	27	143.799	591.939	33	19.534	687.000	24	16.488	700.962	78	54.675	-	-	-	700.962	78	54.675
Bridge Adapter Pallet	51.852	27	1.400	45.727	33	1.509	52.042	24	1.249	53.051	78	4.138	-	-	-	53.051	78	4.138
Fielding	-	-	0.530	-	-	0.252	-	-	1.050	-	-	2.000	-	-	-	-	-	2.000
System Test & Evaluation, Production	-	-	12.224	-	-	3.902	-	-	0.350	-	-	-	-	-	-	-	-	-
System Engineering/ Program Management	-	-	10.300	-	-	2.100	-	-	2.000	-	-	1.411	-	-	-	-	-	1.411
Engineering Changes	-	-	6.100	-	-	-	-	-	0.624	-	-	2.214	-	-	-	-	-	2.214
Subtotal: Recurring Cost	-	-	*174.353*	-	-	*27.297*	-	-	*21.761*	-	-	*64.438*	-	-	-	-	-	*64.438*
Subtotal: Flyaway Cost	**-**	**-**	***174.353***	**-**	**-**	***27.297***	**-**	**-**	***21.761***	**-**	**-**	***64.438***	**-**	**-**	**-**	**-**	**-**	***64.438***
Gross/Weapon System Cost	**6,457.519**	**27**	**174.353**	**827.182**	**33**	**27.297**	**906.708**	**24**	**21.761**	**826.128**	**78**	**64.438**	**-**	**-**	**-**	**826.128**	**78**	**64.438**

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Army	Quantity	-	11	-	-	-
	Total Obligation Authority	-	10.057	-	-	-
ANG	Quantity	17	-	38	-	38
	Total Obligation Authority	14.062	-	31.479	-	31.479

Exhibit P-5, Cost Analysis: PB 2019 Army		Date: February 2018
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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
AR	Quantity	16	13	40	-	40
	Total Obligation Authority	13.235	11.704	32.959	-	32.959
Total: Secondary Distribution	**Quantity**	**33**	**24**	**78**	**-**	**78**
	Total Obligation Authority	**27.297**	**21.761**	**64.438**	**-**	**64.438**

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2019 Army		Date: February 2018
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	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
BEB + CPK Hardware(†)		2017	Birdon America Inc / Denver	C / FFP	TACOM, Warren, MI	Jul 2017	Nov 2017	33	591.940	Y		
BEB + CPK Hardware(†)		2018	Birdon America Inc / Denver	C / FFP	TACOM, Warren, MI	Mar 2018	Sep 2018	24	687.000	Y		
BEB + CPK Hardware(†)		2019	Birdon America Inc / Denver	C / FFP	TACOM, Warren, MI	Dec 2018	Jun 2019	78	700.960	Y		

(†) indicates the presence of a P-21

Exhibit P-21, Production Schedule: PB 2019 Army		Date: February 2018
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 (Units in Each)							Fiscal Year 2017												Fiscal Year 2018												BALANCE
										Calendar Year 2017														Calendar Year 2018								
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2016	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
BEB + CPK Hardware																															
Prior Years Deliveries: 27																															
	1	2017	ARMY	33	0	33										A -	-	-	-	3	3	3	3	3	3	3	4	4	4		0
	1	2018	ARMY	24	0	24																		A -	-	-	-	-	-	2	22
	1	2019	ARMY	78	0	78																									78
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2019 Army		Date: February 2018
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 (Units in Each)							Fiscal Year 2019												Fiscal Year 2020												BALANCE
							Calendar Year 2019												Calendar Year 2020													
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2018	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
BEB + CPK Hardware																															
Prior Years Deliveries: 27																															
	1	2017	ARMY	33	33	0																									0
	1	2018	ARMY	24	2	22	2	2	2	2	3	3	4	4																	0
	1	2019	ARMY	78	0	78			A -	-	-	-	-	-	5	5	6	6	7	7	7	7	7	7	7	7					0
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2019 Army		Date: February 2018
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)							
					Initial				Reorder			
		MSR For 2019	1-8-5 For 2019	MAX For 2019	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	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).

Exhibit P-40, Budget Line Item Justification: PB 2019 Army	Date: February 2018
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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	156	80	75	170	-	170	106	146	187	325	-	1,245
Gross/Weapon System Cost *($ in Millions)*	69.307	25.176	21.046	79.916	-	79.916	51.498	71.080	93.114	163.040	-	574.177
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	69.307	25.176	21.046	79.916	-	79.916	51.498	71.080	93.114	163.040	-	574.177
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**69.307**	**25.176**	**21.046**	**79.916**	**-**	**79.916**	**51.498**	**71.080**	**93.114**	**163.040**	**-**	**574.177**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost *($ in Thousands)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Thousands)*	444.276	314.700	280.613	470.094	-	470.094	485.830	486.849	497.936	501.662	-	461.186

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. The Army plans to recapitalize 100% of the CBT fleet; 24 MRBCs (56 each), 9 SBCTs (4 each), 5 Airborne Companies (2 each), 1 European Activity Set (EAS) (58 each), and 24 CBTs in the training base.

The Army Acquisition Objective is 1528.

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023
Army	Quantity	80	75	99	-	99	68	-	-	-
	Total Obligation Authority	25.176	21.046	46.563	-	46.563	33.036	-	-	-
ANG	Quantity	-	-	51	-	51	30	56	112	162
	Total Obligation Authority	-	-	23.958	-	23.958	14.575	27.264	55.769	81.269
AR	Quantity	-	-	20	-	20	8	90	75	163
	Total Obligation Authority	-	-	9.395	-	9.395	3.887	43.816	37.345	81.771
Total: Secondary Distribution	**Quantity**	**80**	**75**	**170**	**-**	**170**	**106**	**146**	**187**	**325**
	Total Obligation Authority	**25.176**	**21.046**	**79.916**	**-**	**79.916**	**51.498**	**71.080**	**93.114**	**163.040**

Exhibit P-40, Budget Line Item Justification: PB 2019 Army	Date: February 2018
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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 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			156 / 69.307	80 / 25.176	75 / 21.046	170 / 79.916	- / -	170 / 79.916
P-40	**Total Gross/Weapon System Cost**				**156 / 69.307**	**80 / 25.176**	**75 / 21.046**	**170 / 79.916**	**- / -**	**170 / 79.916**

*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 2019 Base procurement dollars in the amount of $79.916 million supports the recapitalization of 170 Common Bridge Transporters. The currently fielded M1977A0 and M1977A2 CBTs have significant obsolescence issues due to armor, electrical, and powertrain improvements. 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 and traction control, and an updated electrical system to support current and future communications equipment and diagnostic/prognostics systems.

The current strategy for recapitalization will be executed by converting excess M977A4 Cargo Trucks at Red River Army Depot (RRAD). This provides the engineer force with the improved capabilities of the A4 version of the Heavy Expanded Mobility Tactical Truck (HEMTT) at minimal cost. Any production beyond RRAD's production capability will be done at Oshkosh Defense.

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.

Exhibit P-5, Cost Analysis: PB 2019 Army		Date: February 2018
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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Procurement Quantity *(Units in Each)*	156	80	75	170	-	170
Gross/Weapon System Cost *($ in Millions)*	69.307	25.176	21.046	79.916	-	79.916
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	69.307	25.176	21.046	79.916	-	79.916
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**69.307**	**25.176**	**21.046**	**79.916**	**-**	**79.916**
(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)*	444.276	314.700	280.613	470.094	-	470.094

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

Cost Elements	Prior Years			FY 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 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(T)	327.962	184	60.345	269.500	80	21.560	242.267	75	18.170	395.682	170	67.266	-	-	-	395.682	170	67.266
FRET	20.500	120	2.460	-	-	-	23.696	46	1.090	47.482	170	8.072	-	-	-	47.482	170	8.072
Engineering Changes	-	-	0.100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
System Engineering/ Program Management	-	-	2.291	-	-	1.600	-	-	1.200	-	-	1.056	-	-	-	-	-	1.056
System Test & Evaluation, Production	-	-	-	-	-	0.500	-	-	-	-	-	-	-	-	-	-	-	-
Data	-	-	2.961	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fielding	-	-	0.250	-	-	0.300	-	-	0.300	-	-	0.900	-	-	-	-	-	0.900
Transportation	-	-	0.900	-	-	1.216	-	-	0.286	-	-	2.490	-	-	-	-	-	2.490
Bridge Adapter Pallet Locks	-	-	-	-	-	-	-	-	-	0.776	170	0.132	-	-	-	0.776	170	0.132
Subtotal: Recurring Cost	-	-	*69.307*	-	-	*25.176*	-	-	*21.046*	-	-	*79.916*	-	-	-	-	-	*79.916*
Subtotal: Flyaway Cost	**-**	**-**	***69.307***	**-**	**-**	***25.176***	**-**	**-**	***21.046***	**-**	**-**	***79.916***	**-**	**-**	**-**	**-**	**-**	***79.916***
Gross/Weapon System Cost	**444.276**	**156**	**69.307**	**314.700**	**80**	**25.176**	**280.613**	**75**	**21.046**	**470.094**	**170**	**79.916**	**-**	**-**	**-**	**470.094**	**170**	**79.916**

Exhibit P-5, Cost Analysis: PB 2019 Army		Date: February 2018
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:**

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Army	Quantity	80	75	99	-	99
	Total Obligation Authority	25.176	21.046	46.563	-	46.563
ANG	Quantity	-	-	51	-	51
	Total Obligation Authority	-	-	23.958	-	23.958
AR	Quantity	-	-	20	-	20
	Total Obligation Authority	-	-	9.395	-	9.395
Total: Secondary Distribution	**Quantity**	**80**	**75**	**170**	**-**	**170**
	Total Obligation Authority	**25.176**	**21.046**	**79.916**	**-**	**79.916**

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2019 Army		Date: February 2018
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	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
M1977A4 CBT RECAP(†)		2017	Red River Army Depot / Texarkana, Texas	WR	TACOM, Warren, MI	Feb 2017	Jun 2017	80	269.500	Y		
M1977A4 CBT RECAP(†)		2018	Red River Army Depot / Texarkana, Texas	WR	TACOM, Warren, MI	Feb 2018	Jun 2018	75	242.270	Y		
M1977A4 CBT RECAP(†)		2019	Oshkosh Corp / Oshkosh	SS / FPIF	TACOM, Warren, MI	Apr 2019	Sep 2019	170	395.680	Y		

(†) indicates the presence of a P-21

Exhibit P-21, Production Schedule: PB 2019 Army		Date: February 2018
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 (Units in Each)							Fiscal Year 2017												Fiscal Year 2018											BALANCE
										Calendar Year 2017														Calendar Year 2018								
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2016	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
M1977A4 CBT RECAP																														
Prior Years Deliveries: 184																														
	2	2017	ARMY	80	0	80					A -	-	-	-	6	6	7	7	7	7	7	7	7	7	5					0
	2	2018	ARMY	75	0	75																	A -	-	-	-	5	6	6	6	52
	1	2019	ARMY	170	0	170																									170
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2019 Army		Date: February 2018
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 (Units in Each)							Fiscal Year 2019												Fiscal Year 2020												BALANCE
										Calendar Year 2019														Calendar Year 2020									
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2018	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
M1977A4 CBT RECAP																															
Prior Years Deliveries: 184																															
	2	2017	ARMY	80	80	0																									0
	2	2018	ARMY	75	23	52	6	6	6	6	7	7	7	7																	0
	1	2019	ARMY	170	0	170							A -	-	-	-	-	14	14	14	14	14	14	14	14	14	14	15	15		0
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2019 Army		Date: February 2018
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)							
					Initial				Reorder			
		MSR For 2019	1-8-5 For 2019	MAX For 2019	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	20	924	2,520	0	9	11	20	0	7	5	12
2	Red River Army Depot - Texarkana, Texas	6	8	12	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).

Exhibit P-40, Budget Line Item Justification: PB 2019 Army	Date: February 2018
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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	181	306	-	306	194	196	66	66	-	1,009
Gross/Weapon System Cost *($ in Millions)*	352.151	-	5.000	8.471	-	8.471	5.899	5.947	2.000	2.000	-	381.468
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	352.151	-	5.000	8.471	-	8.471	5.899	5.947	2.000	2.000	-	381.468
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**352.151**	**-**	**5.000**	**8.471**	**-**	**8.471**	**5.899**	**5.947**	**2.000**	**2.000**	**-**	**381.468**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost *($ in Thousands)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Thousands)*	-	-	27.624	27.683	-	27.683	30.407	30.342	30.303	30.303	-	378.065

Description:

The AN/PSS-14 Mine Detecting Set is a lightweight self-contained handheld mine detector system that is operated by a single soldier. It consists of a Ground Penetrating Radar (GPR), improved Metal Detector (MD), and detection algorithms that combine to provide a greatly enhanced capability over the presently fielded metal detector. The AN/PSS-14 provides the Warfighter with the capability to detect improvised explosive devices and the full spectrum of land mines to include metallic and low-metallic mines. This item is Code A, approved for service use.

Army Acquisition Objective (AAO) is 18,461 sets.

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023
Army	Quantity	-	91	125	-	125	29	31	66	66
	Total Obligation Authority	-	2.500	3.471	-	3.471	0.899	0.947	2.000	2.000
ANG	Quantity	-	43	91	-	91	83	83	-	-
	Total Obligation Authority	-	1.200	2.500	-	2.500	2.500	2.500	-	-
AR	Quantity	-	47	90	-	90	82	82	-	-
	Total Obligation Authority	-	1.300	2.500	-	2.500	2.500	2.500	-	-
Total: Secondary Distribution	**Quantity**	**-**	**181**	**306**	**-**	**306**	**194**	**196**	**66**	**66**
	Total Obligation Authority	**-**	**5.000**	**8.471**	**-**	**8.471**	**5.899**	**5.947**	**2.000**	**2.000**

Exhibit P-40, Budget Line Item Justification: PB 2019 Army	Date: February 2018
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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 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, P-21	A		- / 352.151	- / -	181 / 5.000	306 / 8.471	- / -	306 / 8.471
P-40	**Total Gross/Weapon System Cost**				**- / 352.151**	**- / -**	**181 / 5.000**	**306 / 8.471**	**- / -**	**306 / 8.471**

*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:
FY19 Base procurement dollars in the amount of $8.471 million procures 306 AN/PSS-14 systems and the support required to field the systems.
TYPE CLASSIFICATION DATE: November 2003

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.

Exhibit P-5, Cost Analysis: PB 2019 Army		Date: February 2018
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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Procurement Quantity *(Units in Each)*	-	-	181	306	-	306
Gross/Weapon System Cost *($ in Millions)*	352.151	-	5.000	8.471	-	8.471
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	352.151	-	5.000	8.471	-	8.471
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**352.151**	**-**	**5.000**	**8.471**	**-**	**8.471**
(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)*	-	-	27.624	27.683	-	27.683

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

Cost Elements	Prior Years			FY 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 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(†)	12.996	15,545	202.020	-	-	-	22.823	181	4.131	23.794	306	7.281	-	-	-	23.794	306	7.281
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	-	-	35.345	-	-	-	-	-	0.151	-	-	0.244	-	-	-	-	-	0.244
Program Management	-	-	15.649	-	-	-	-	-	0.450	-	-	0.470	-	-	-	-	-	0.470
Training & Maintenance	-	-	35.391	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acceptance Testing	-	-	1.377	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Integrated Logistic Support	-	-	17.904	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
NET (New Equipment Training)/DTT (Doctrine and Tactics Training)	-	-	5.280	-	-	-	-	-	0.268	-	-	0.476	-	-	-	-	-	0.476
Subtotal: Recurring Cost	-	-	*352.151*	-	-	-	-	-	*5.000*	-	-	*8.471*	-	-	-	-	-	*8.471*
Subtotal: Flyaway Cost	**-**	**-**	***352.151***	**-**	**-**	**-**	**-**	**-**	***5.000***	**-**	**-**	***8.471***	**-**	**-**	**-**	**-**	**-**	***8.471***

Exhibit P-5, Cost Analysis: PB 2019 Army		Date: February 2018
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 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 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	-	-	352.151	-	-	-	27.624	181	5.000	27.683	306	8.471	-	-	-	27.683	306	8.471

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Army	Quantity	-	91	125	-	125
	Total Obligation Authority	-	2.500	3.471	-	3.471
ANG	Quantity	-	43	91	-	91
	Total Obligation Authority	-	1.200	2.500	-	2.500
AR	Quantity	-	47	90	-	90
	Total Obligation Authority	-	1.300	2.500	-	2.500
Total: Secondary Distribution	**Quantity**	**-**	**181**	**306**	**-**	**306**
	Total Obligation Authority	**-**	**5.000**	**8.471**	**-**	**8.471**

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2019 Army		Date: February 2018
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	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
Detector Set AN/PSS-14(†)		2018	TBS / TBS	C / FFP	CECOM, Ft Belvoir, VA	Sep 2018	Aug 2019	181	22.820			
Detector Set AN/PSS-14(†)		2019	TBS / TBS	C / FFP	CECOM, Ft Belvoir, VA	Mar 2019	Jul 2019	306	23.790			

(†) indicates the presence of a P-21

Exhibit P-21, Production Schedule: PB 2019 Army		Date: February 2018
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 (Units in Each)							Fiscal Year 2018												Fiscal Year 2019											BALANCE
										Calendar Year 2018														Calendar Year 2019								
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2017	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
Detector Set AN/PSS-14																														
Prior Years Deliveries: 15545																														
	1	2018	ARMY	181	0	181												A -	-	-	-	-	-	-	-	-	-	48	48	85
	1	2019	ARMY	306	0	306																		A -	-	-	-	102	102	102	0
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2019 Army		Date: February 2018
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 (Units in Each)							Fiscal Year 2020												Fiscal Year 2021												BALANCE
										Calendar Year 2020														Calendar Year 2021									
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2019	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
Detector Set AN/PSS-14																															
Prior Years Deliveries: 15545																															
	1	2018	ARMY	181	96	85	85																								0
	1	2019	ARMY	306	306	0																									0
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2019 Army		Date: February 2018
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

MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Month)			Procurement Leadtime (Months)							
					Initial				Reorder			
		MSR For 2019	1-8-5 For 2019	MAX For 2019	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 - TBS	5	150	250	8	8	11	19	1	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).

Exhibit P-40, Budget Line Item Justification: PB 2019 Army	Date: February 2018
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 Sysm (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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	495	146	121	132	40	172	153	175	111	7	-	1,380
Gross/Weapon System Cost *($ in Millions)*	1,962.750	39.350	32.442	29.883	16.000	45.883	37.123	36.479	31.269	6.749	-	2,192.045
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	1,962.750	39.350	32.442	29.883	16.000	45.883	37.123	36.479	31.269	6.749	-	2,192.045
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**1,962.750**	**39.350**	**32.442**	**29.883**	**16.000**	**45.883**	**37.123**	**36.479**	**31.269**	**6.749**	**-**	**2,192.045**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost *($ in Thousands)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Thousands)*	3,965.152	269.521	268.116	226.386	400.000	266.762	242.634	208.451	281.703	964.143	-	1,588.438

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 Improvise 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 344, the Debris Blower is 186, and the Wire Neutralization System (WNS) is 344. (AAO includes European Reassurance Initiative (EDI).

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 Ordinance 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.

Exhibit P-40, Budget Line Item Justification: PB 2019 Army		Date: February 2018
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 Sysm (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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023
Army	Quantity	139	77	71	40	111	54	38	56	7
	Total Obligation Authority	34.879	15.938	17.903	16.000	33.903	21.781	11.276	16.840	4.801
ANG	Quantity	7	23	39	-	39	48	70	28	-
	Total Obligation Authority	4.471	9.579	7.051	-	7.051	8.299	11.942	6.962	1.948
AR	Quantity	-	21	22	-	22	51	67	27	-
	Total Obligation Authority	-	6.925	4.929	-	4.929	7.043	13.261	7.467	-
Total: Secondary Distribution	**Quantity**	**146**	**121**	**132**	**40**	**172**	**153**	**175**	**111**	**7**
	Total Obligation Authority	**39.350**	**32.442**	**29.883**	**16.000**	**45.883**	**37.123**	**36.479**	**31.269**	**6.749**

Exhibit P-40, Budget Line Item Justification: PB 2019 Army	Date: February 2018
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 Sysm (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	

Exhibits Schedule					Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 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	R68102 / GRND STANDOFF MINE DETECTN SYSM (GSTAMIDS)BLK 1	P-5a, P-21			495 / 1,962.750	146 / 39.350	121 / 32.442	132 / 29.883	40 / 16.000	172 / 45.883
P-40	**Total Gross/Weapon System Cost**				**495 / 1,962.750**	**146 / 39.350**	**121 / 32.442**	**132 / 29.883**	**40 / 16.000**	**172 / 45.883**

*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:
Total FY2019 Base procurement dollars in the amount of $29.883 million procures the following:

FY2019 Base procurement dollars in the amount of $22.370 million supports the procurement and fielding of Explosive Hazard Pre-Detonation (EHP) systems and Program Management. EHP Debris Blower funding supports fielding, Modification Work Orders (MWOs), special tools and test equipment (STTE), and spares. The Wire Neutralization Systems (WNS) funding supports production and fielding of 55 systems, which includes STTE, and spares. EHP Roller funding supports production and fielding of 59 systems which includes STTE, spares, Limited User Test (LUT) and First Article Test (FAT)

FY2019 Base procurement dollars in the amount of $7.513 million supports the VOSS refresh and upgrade effort at Tobyhanna Army Depot and continued Total Package Fielding to Explosive Ordinance Disposal (EOD) and Engineers and to complete integration of geo-location capability into previously fielded VOSS.

Total FY2019 OCO procurement dollars in the amount of $16.000 million procures the following:

FY2019 OCO procurement dollars in the amount of $10.425 million will support Program Management, printing and shipping of Log Manuals, a portion of the Development of Sustainment Training - Desktop Trainer, and the procurement of 10 Debris Blowers (includes MWO), 10 WNS, and 10 Rollers, to include STTE, Spares and fielding for European Deterrence Initiative (EDI).

FY2019 OCO procurement dollars in the amount of $5.575 million supports VOSS deployment for EDI.

The FY 2019 funding request was reduced for $5.113 million to account for the availability of prior year execution balances.

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.

Exhibit P-5, Cost Analysis: PB 2019 Army		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 20	**P-1 Line Item Number / Title:** 2881R68400 / Grnd Standoff Mine Detectn Sysm (GSTAMIDS)	**Item Number / Title [DODIC]:** R68102 / GRND STANDOFF MINE DETECTN SYSM (GSTAMIDS)BLK 1
ID Code (A=Service Ready, B=Not Service Ready) :	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Procurement Quantity *(Units in Each)*	495	146	121	132	40	172
Gross/Weapon System Cost *($ in Millions)*	1,962.750	39.350	32.442	29.883	16.000	45.883
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	1,962.750	39.350	32.442	29.883	16.000	45.883
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**1,962.750**	**39.350**	**32.442**	**29.883**	**16.000**	**45.883**
(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)*	3,965.152	269.521	268.116	226.386	400.000	266.762

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

	Prior Years			FY 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 Total		
Cost Elements	**Unit Cost** *($ K)*	**Qty** *(Each)*	**Total Cost** *($ M)*	**Unit Cost** *($ K)*	**Qty** *(Each)*	**Total Cost** *($ M)*	**Unit Cost** *($ K)*	**Qty** *(Each)*	**Total Cost** *($ M)*	**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																		
EHP Program Mgt	-	-	-	-	-	2.500	-	-	2.500	-	-	2.500	-	-	1.500	-	-	4.000
VCTS (Engineering Change Proposal (ECP)) to include EHP and MCV	-	-	-	-	-	2.025	-	-	-	-	-	-	-	-	-	-	-	-
EHP Log Development, Printing, and Shipping	-	-	-	-	-	2.336	-	-	-	-	-	-	-	-	0.211	-	-	0.211
Roller System Production(†)	-	-	-	-	-	-	162.153	72	11.675	160.000	59	9.440	160.000	10	1.600	160.000	69	11.040
Roller System STTE	-	-	-	-	-	-	-	-	0.040	-	-	0.350	-	-	0.025	-	-	0.375
Roller System Spares	-	-	-	-	-	-	-	-	1.500	-	-	1.680	-	-	1.110	-	-	2.790
Roller - Development of Sustainment Training (Phase II - Maint) IDesktop Trainer - IMI)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.096	-	-	0.096
Debris Blower Production(†)	-	-	-	-	-	-	-	-	-	-	-	-	50.000	10	0.500	50.000	10	0.500
Debris Blower Buffalo A-Kit	-	-	-	-	-	2.700	-	-	-	-	-	-	-	-	1.000	-	-	1.000
Debris Blower STTE	-	-	-	-	-	-	-	-	0.100	-	-	-	-	-	0.025	-	-	0.025

Exhibit P-5, Cost Analysis: PB 2019 Army		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 20	P-1 Line Item Number / Title: 2881R68400 / Grnd Standoff Mine Detectn Sysm (GSTAMIDS)	Item Number / Title [DODIC]: R68102 / GRND STANDOFF MINE DETECTN SYSM (GSTAMIDS)BLK 1
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 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 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)
Debris Blower Spares	-	-	-	-	-	-	-	-	0.240	-	-	0.092	-	-	0.210	-	-	0.302
Blower - Development of Sustainment Training (Phase II - Maint) IDesktop Trainer - IMI)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.250	-	-	0.250
Blower - MWO Application	-	-	-	-	-	-	-	-	-	-	-	0.950	-	-	0.050	-	-	1.000
Wire Neutralization System Production(†)	-	-	-	115.111	117	13.468	-	-	-	37.982	55	2.089	105.000	10	1.050	48.292	65	3.139
Wire Neutralization System STTE	-	-	-	-	-	-	-	-	0.070	-	-	0.625	-	-	0.025	-	-	0.650
Wire Neutralization System Spares	-	-	-	-	-	-	-	-	0.400	-	-	2.028	-	-	0.488	-	-	2.516
WiNS - Development of Sustainment Training (Phase II - Maint) IDesktop Trainer - IMI)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.120	-	-	0.120
EHP_Fielding support	-	-	-	-	-	2.775	-	-	3.498	-	-	1.997	-	-	2.165	-	-	4.162
First Article Test (FAT) and Limited User Rest (LUT)	-	-	-	-	-	-	-	-	-	-	-	0.619	-	-	-	-	-	0.619
VOSS HW Refresh Effort	-	-	-	202.351	37	7.487	85.500	36	3.078	95.833	18	1.725	115.000	10	1.150	102.679	28	2.875
Engineering Support	-	-	-	-	-	0.836	-	-	1.074	-	-	0.618	-	-	0.520	-	-	1.138
Project Management Office	-	-	-	-	-	0.671	-	-	1.129	-	-	0.613	-	-	0.665	-	-	1.278
Logistics Support	-	-	-	-	-	0.296	-	-	0.238	-	-	0.172	-	-	-	-	-	0.172
Tobyhanna Refresh Labor	-	-	-	-	-	1.068	-	-	1.088	-	-	0.500	-	-	1.000	-	-	1.500
Fielding	-	-	-	-	-	1.806	-	-	1.833	-	-	0.500	-	-	0.960	-	-	1.460
Initial Spares	-	-	-	-	-	0.589	-	-	0.600	-	-	0.435	-	-	0.568	-	-	1.003
TYAD Fabrication of Cables & Brushguard	-	-	-	-	-	0.793	-	-	0.129	-	-	0.150	-	-	0.712	-	-	0.862
Prior Year Funding	3,965.152	495	1,962.750	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Geo-location Integration	-	-	-	-	-	-	-	-	3.250	-	-	2.800	-	-	-	-	-	2.800
Subtotal: Recurring Cost	-	-	*1,962.750*	-	-	*39.350*	-	-	*32.442*	-	-	*29.883*	-	-	*16.000*	-	-	*45.883*

Exhibit P-5, Cost Analysis: PB 2019 Army		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 20	**P-1 Line Item Number / Title:** 2881R68400 / Grnd Standoff Mine Detectn Sysm (GSTAMIDS)	**Item Number / Title [DODIC]:** R68102 / GRND STANDOFF MINE DETECTN SYSM (GSTAMIDS)BLK 1
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 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 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)
Subtotal: Hardware Cost	*-*	*-*	*1,962.750*	*-*	*-*	*39.350*	*-*	*-*	*32.442*	*-*	*-*	*29.883*	*-*	*-*	*16.000*	*-*	*-*	*45.883*
Gross/Weapon System Cost	**3,965.152**	**495**	**1,962.750**	**269.521**	**146**	**39.350**	**268.116**	**121**	**32.442**	**226.386**	**132**	**29.883**	**400.000**	**40**	**16.000**	**266.762**	**172**	**45.883**

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Army	Quantity	139	77	71	40	111
	Total Obligation Authority	34.879	15.938	17.903	16.000	33.903
ANG	Quantity	7	23	39	-	39
	Total Obligation Authority	4.471	9.579	7.051	-	7.051
AR	Quantity	-	21	22	-	22
	Total Obligation Authority	-	6.925	4.929	-	4.929
Total: Secondary Distribution	**Quantity**	**146**	**121**	**132**	**40**	**172**
	Total Obligation Authority	**39.350**	**32.442**	**29.883**	**16.000**	**45.883**

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2019 Army		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 20	P-1 Line Item Number / Title: 2881R68400 / Grnd Standoff Mine Detectn Sysm (GSTAMIDS)	Item Number / Title [DODIC]: R68102 / GRND STANDOFF MINE DETECTN SYSM (GSTAMIDS)BLK 1

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
Roller System Production(†)		2018	TBS - Roller / TACOM, Warren, MI	C / FFP	TACOM, Warren, MI	Feb 2018	May 2018	72	162.150	Y		
Roller System Production(†)		2019	TBS - Roller / TACOM, Warren, MI	C / FFP	TACOM, Warren, MI	Jul 2019	Sep 2019	69	160.000	Y		
Debris Blower Production		2017	Buffalo Turbine / Springville, NY	SS / FFP	TACOM, Warren, MI	Jul 2018	Aug 2018	0	0.000	Y		
Debris Blower Production	✓	2019	Buffalo Turbine / Springville, NY	SS / FFP	TACOM, Warren, MI	Nov 2018	Feb 2019	10	50.000	Y		
Wire Neutralization System Production		2017	GS Enginerring - WNS / TACOM, Warren, MI	C / FFP	TACOM, Warren, MI	Nov 2017	Feb 2018	49	106.500	Y		
Wire Neutralization System Production		2017	Anniston Army Depot / Anniston, AL	Reqn	TACOM, Warren, MI	Oct 2017	Jan 2018	68	106.500	Y		
Wire Neutralization System Production		2019	GS Enginerring - WNS / TACOM, Warren, MI	C / FFP	TACOM, Warren, MI	Nov 2018	Jan 2019	65	48.290	Y		

(†) indicates the presence of a P-21

Exhibit P-21, Production Schedule: PB 2019 Army		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 20	**P-1 Line Item Number / Title:** 2881R68400 / Grnd Standoff Mine Detectn Sysm (GSTAMIDS)	**Item Number / Title [DODIC]:** R68102 / GRND STANDOFF MINE DETECTN SYSM (GSTAMIDS)BLK 1

Cost Elements (Units in Each)							Fiscal Year 2018												Fiscal Year 2019												BALANCE
										Calendar Year 2018														Calendar Year 2019									
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2017	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
Roller System Production																															
	1	2018	ARMY	72	0	72					A -	-	-	6	6	6	6	6	6	6	6	6	6	6								0
	1	2019	ARMY	69	0	69																						A -	-	6	63
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2019 Army		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 20	**P-1 Line Item Number / Title:** 2881R68400 / Grnd Standoff Mine Detectn Sysm (GSTAMIDS)	**Item Number / Title [DODIC]:** R68102 / GRND STANDOFF MINE DETECTN SYSM (GSTAMIDS)BLK 1

Cost Elements (Units in Each)							Fiscal Year 2020												Fiscal Year 2021												BALANCE
										Calendar Year 2020														Calendar Year 2021									
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2019	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
Roller System Production																															
	1	2018	ARMY	72	72	0																									0
	1	2019	ARMY	69	6	63	6	6	6	6	6	6	6	6	6	6	3														0
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2019 Army		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 20	**P-1 Line Item Number / Title:** 2881R68400 / Grnd Standoff Mine Detectn Sysm (GSTAMIDS)	**Item Number / Title [DODIC]:** R68102 / GRND STANDOFF MINE DETECTN SYSM (GSTAMIDS)BLK 1

MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Month)			Procurement Leadtime (Months)							
					Initial				Reorder			
		MSR For 2019	1-8-5 For 2019	MAX For 2019	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 - Roller - TACOM, Warren, MI	3	6	13	12	12	3	15	0	0	3	3

"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).

Exhibit P-40, Budget Line Item Justification: PB 2019 Army	Date: February 2018
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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	16	16	24	-	24	72	18	-	-	-	146
Gross/Weapon System Cost *($ in Millions)*	-	10.500	10.571	11.594	0.001	11.595	24.951	10.194	-	-	-	67.811
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	-	10.500	10.571	11.594	0.001	11.595	24.951	10.194	-	-	-	67.811
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**-**	**10.500**	**10.571**	**11.594**	**0.001**	**11.595**	**24.951**	**10.194**	**-**	**-**	**-**	**67.811**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost *($ in Thousands)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Thousands)*	-	656.250	660.688	483.083	-	483.125	346.542	566.333	-	-	-	464.459

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.

SREHD will transition from PE 0654808A, Project 415, Landmine Warfare/Barrier - Eng Dev, Engineering Manufacturing Development (EMD) phase to Low Rate Initial Production (LRIP) in FY 2018. The Army Acquisition Objective (AAO) for SREHD is 173.

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023
Army	Quantity	16	8	16	-	16	30	10	-	-
	Total Obligation Authority	10.500	5.009	7.652	0.001	7.653	10.330	5.372	-	-
ANG	Quantity	-	4	4	-	4	22	4	-	-
	Total Obligation Authority	-	2.781	2.087	-	2.087	7.666	2.411	-	-
AR	Quantity	-	4	4	-	4	20	4	-	-
	Total Obligation Authority	-	2.781	1.855	-	1.855	6.955	2.411	-	-
Total: Secondary Distribution	**Quantity**	**16**	**16**	**24**	**-**	**24**	**72**	**18**	**-**	**-**
	Total Obligation Authority	**10.500**	**10.571**	**11.594**	**0.001**	**11.595**	**24.951**	**10.194**	**-**	**-**

Exhibit P-40, Budget Line Item Justification: PB 2019 Army	Date: February 2018
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

Exhibits Schedule					Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 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	R68260 / AREA MINE DETECTION SYSTEM (AMDS)	P-5a, P-21	B		- / -	16 / 10.500	16 / 10.571	24 / 11.594	- / 0.001	24 / 11.595
P-40	**Total Gross/Weapon System Cost**				**- / -**	**16 / 10.500**	**16 / 10.571**	**24 / 11.594**	**- / 0.001**	**24 / 11.595**

*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 2019 Base procurement dollars in the amount of $11.594 million supports procurement of 24 Standoff Robotic Explosive Hazard Detection Systems (SREHDs), formerly known as the Autonomous Mine Detection System (AMDS). FY 2019 OCO procurement dollars in the amount of $0.001 million supports engineering during production.

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.

Exhibit P-5, Cost Analysis: PB 2019 Army		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 20	**P-1 Line Item Number / Title:** 2888R68260 / AREA MINE DETECTION SYSTEM (AMDS)	**Item Number / Title [DODIC]:** R68260 / AREA MINE DETECTION SYSTEM (AMDS)
ID Code (A=Service Ready, B=Not Service Ready) : B		**MDAP/MAIS Code:**

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Procurement Quantity *(Units in Each)*	-	16	16	24	-	24
Gross/Weapon System Cost *($ in Millions)*	-	10.500	10.571	11.594	0.001	11.595
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	-	10.500	10.571	11.594	0.001	11.595
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**-**	**10.500**	**10.571**	**11.594**	**0.001**	**11.595**
(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)*	-	656.250	660.688	483.083	-	483.125

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

Cost Elements	Prior Years			FY 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 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																		
SREHD (formerly AMDS) Hardware(†)	-	-	-	383.063	16	6.129	295.813	16	4.733	233.250	24	5.598	-	-	-	233.250	24	5.598
Subtotal: Recurring Cost	-	-	-	-	-	*6.129*	-	-	*4.733*	-	-	*5.598*	-	-	-	-	-	*5.598*
Subtotal: Hardware Cost	**-**	**-**	**-**	**-**	**-**	***6.129***	**-**	**-**	***4.733***	**-**	**-**	***5.598***	**-**	**-**	**-**	**-**	**-**	***5.598***
Logistics Cost																		
Recurring Cost																		
Contractor Logistics Support	-	-	-	-	-	-	-	-	0.737	-	-	1.000	-	-	-	-	-	1.000
Subtotal: Recurring Cost	-	-	-	-	-	-	-	-	*0.737*	-	-	*1.000*	-	-	-	-	-	*1.000*
Subtotal: Logistics Cost	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***0.737***	**-**	**-**	***1.000***	**-**	**-**	**-**	**-**	**-**	***1.000***
Support - Acceptance Testing Cost																		
First Article Test	-	-	-	-	-	0.210	-	-	-	-	-	-	-	-	-	-	-	-
Acceptance Test	-	-	-	-	-	0.053	-	-	0.054	-	-	0.055	-	-	-	-	-	0.055
Subtotal: Support - Acceptance Testing Cost	**-**	**-**	**-**	**-**	**-**	***0.263***	**-**	**-**	***0.054***	**-**	**-**	***0.055***	**-**	**-**	**-**	**-**	**-**	***0.055***
Support - Initial Spares and Repair Parts Cost																		
Initial Spares and Repair Parts	-	-	-	-	-	0.560	-	-	0.641	-	-	0.874	-	-	-	-	-	0.874
Subtotal: Support - Initial Spares and Repair Parts Cost	**-**	**-**	**-**	**-**	**-**	***0.560***	**-**	**-**	***0.641***	**-**	**-**	***0.874***	**-**	**-**	**-**	**-**	**-**	***0.874***

Exhibit P-5, Cost Analysis: PB 2019 Army		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 20	**P-1 Line Item Number / Title:** 2888R68260 / AREA MINE DETECTION SYSTEM (AMDS)	**Item Number / Title [DODIC]:** R68260 / AREA MINE DETECTION SYSTEM (AMDS)
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 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 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 - Production Engineering Cost																		
Production Engineering	-	-	-	-	-	2.069	-	-	2.632	-	-	2.487	-	-	0.001	-	-	2.488
Subtotal: Support - Production Engineering Cost	**-**	**-**	**-**	**-**	**-**	***2.069***	**-**	**-**	***2.632***	**-**	**-**	***2.487***	**-**	**-**	***0.001***	**-**	**-**	***2.488***
Support - Program Management Cost																		
Government Management	-	-	-	-	-	1.122	-	-	1.358	-	-	0.521	-	-	-	-	-	0.521
Subtotal: Support - Program Management Cost	**-**	**-**	**-**	**-**	**-**	***1.122***	**-**	**-**	***1.358***	**-**	**-**	***0.521***	**-**	**-**	**-**	**-**	**-**	***0.521***
Support - Staging and Transportation Cost																		
Staging and Transportation	-	-	-	-	-	0.056	-	-	0.062	-	-	0.059	-	-	-	-	-	0.059
Subtotal: Support - Staging and Transportation Cost	**-**	**-**	**-**	**-**	**-**	***0.056***	**-**	**-**	***0.062***	**-**	**-**	***0.059***	**-**	**-**	**-**	**-**	**-**	***0.059***
Support - Training Cost																		
Services	-	-	-	-	-	0.301	-	-	0.354	-	-	1.000	-	-	-	-	-	1.000
Subtotal: Support - Training Cost	**-**	**-**	**-**	**-**	**-**	***0.301***	**-**	**-**	***0.354***	**-**	**-**	***1.000***	**-**	**-**	**-**	**-**	**-**	***1.000***
Gross/Weapon System Cost	**-**	**-**	**-**	**656.250**	**16**	**10.500**	**660.688**	**16**	**10.571**	**483.083**	**24**	**11.594**	**-**	**-**	**0.001**	**483.125**	**24**	**11.595**

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Army	Quantity	16	8	16	-	16
	Total Obligation Authority	10.500	5.009	7.652	0.001	7.653
ANG	Quantity	-	4	4	-	4
	Total Obligation Authority	-	2.781	2.087	-	2.087
AR	Quantity	-	4	4	-	4
	Total Obligation Authority	-	2.781	1.855	-	1.855
Total: Secondary Distribution	**Quantity**	**16**	**16**	**24**	**-**	**24**
	Total Obligation Authority	**10.500**	**10.571**	**11.594**	**0.001**	**11.595**

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2019 Army		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 20	P-1 Line Item Number / Title: 2888R68260 / AREA MINE DETECTION SYSTEM (AMDS)	Item Number / Title [DODIC]: R68260 / AREA MINE DETECTION SYSTEM (AMDS)

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
SREHD (formerly AMDS) Hardware(†)		2017	Carnegie Robotics LLC / Pittsburgh, PA	C / CPIF	Picatinny Arsenal, NJ	Apr 2018	Feb 2019	16	383.060			
SREHD (formerly AMDS) Hardware(†)		2018	TBS / TBS01	C / FFP	Picatinny Arsenal, NJ	Jan 2019	Oct 2019	16	295.810			
SREHD (formerly AMDS) Hardware(†)		2019	TBS / TBS01	C / FFP	Picatinny Arsenal, NJ	Jan 2019	Jan 2020	24	233.250			

(†) indicates the presence of a P-21

Exhibit P-21, Production Schedule: PB 2019 Army		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 20	**P-1 Line Item Number / Title:** 2888R68260 / AREA MINE DETECTION SYSTEM (AMDS)	**Item Number / Title [DODIC]:** R68260 / AREA MINE DETECTION SYSTEM (AMDS)

Cost Elements (Units in Each)							Fiscal Year 2018												Fiscal Year 2019											BALANCE
										Calendar Year 2018														Calendar Year 2019								
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2017	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
SREHD (formerly AMDS) Hardware																														
	1	2017	ARMY	16	0	16							A	-	-	-	-	-	-	-	-	-	4	-	-	12					0
	2	2018	ARMY	16	0	16																A	-	-	-	-	-	-	-	-	16
	2	2019	ARMY	24	0	24																A	-	-	-	-	-	-	-	-	24
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2019 Army		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 20	**P-1 Line Item Number / Title:** 2888R68260 / AREA MINE DETECTION SYSTEM (AMDS)	**Item Number / Title [DODIC]:** R68260 / AREA MINE DETECTION SYSTEM (AMDS)

Cost Elements (Units in Each)							Fiscal Year 2020												Fiscal Year 2021												BALANCE
										Calendar Year 2020														Calendar Year 2021									
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2019	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
SREHD (formerly AMDS) Hardware																															
	1	2017	ARMY	16	16	0																									0
	2	2018	ARMY	16	0	16	5	5	5	1																					0
	2	2019	ARMY	24	0	24	-	-	-	4	5	5	5	5																	0
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2019 Army		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 20	**P-1 Line Item Number / Title:** 2888R68260 / AREA MINE DETECTION SYSTEM (AMDS)	**Item Number / Title [DODIC]:** R68260 / AREA MINE DETECTION SYSTEM (AMDS)

MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Month)			Procurement Leadtime (Months)							
					Initial				Reorder			
		MSR For 2019	1-8-5 For 2019	MAX For 2019	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	Carnegie Robotics LLC - Pittsburgh, PA	1	5	12	9	9	9	18	9	9	4	13
2	TBS - TBS01	1	5	12	9	9	9	18	9	9	4	13

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).

Exhibit P-40, Budget Line Item Justification: PB 2019 Army	Date: February 2018
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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	84	0	19	58	-	58	100	139	73	73	-	546
Gross/Weapon System Cost *($ in Millions)*	18.545	0.274	21.695	40.834	-	40.834	53.741	75.450	45.454	43.980	-	299.973
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	18.545	0.274	21.695	40.834	-	40.834	53.741	75.450	45.454	43.980	-	299.973
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**18.545**	**0.274**	**21.695**	**40.834**	**-**	**40.834**	**53.741**	**75.450**	**45.454**	**43.980**	**-**	**299.973**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost *($ in Thousands)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Thousands)*	220.774	-	1,141.842	704.034	-	704.034	537.410	542.806	622.658	602.466	-	549.401

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 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. The program was restructured in Sep 2016 to align with emerging shallow buried Wire Detection (WD) capabilities integrated onto the HMDS Increment A1 configuration (includes Ground Penetrating Radar (GPR)). These changes are necessary to adapt to changing IED threats. WD technology will be fully integrated through Engineering Change Proposals (ECPs) beginning in FY18. Future capabilities may include detection of deep buried IEDs and caches, and semi-autonomous control of the Husky vehicle and HMDS from inside a follow-on vehicle.

Exhibit P-40, Budget Line Item Justification: PB 2019 Army	Date: February 2018
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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 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			84 / 18.545	0 / 0.274	19 / 21.695	58 / 40.834	- / -	58 / 40.834
P-40	**Total Gross/Weapon System Cost**				**84 / 18.545**	**0 / 0.274**	**19 / 21.695**	**58 / 40.834**	**- / -**	**58 / 40.834**

*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:
FY2019 Base procurement dollars in the amount of $40.834 million procures 58 Husky Mounted Detection System (HMDS) Ground Penetrating Radars (GPRs), Contractor Logistic Support (CLS), and Program Support. In addition procures spares for the fielding of RESET systems.

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.

Exhibit P-5, Cost Analysis: PB 2019 Army		Date: February 2018
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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Procurement Quantity *(Units in Each)*	84	0	19	58	-	58
Gross/Weapon System Cost *($ in Millions)*	18.545	0.274	21.695	40.834	-	40.834
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	18.545	0.274	21.695	40.834	-	40.834
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**18.545**	**0.274**	**21.695**	**40.834**	**-**	**40.834**
(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)*	220.774	-	1,141.842	704.034	-	704.034

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

Cost Elements	Prior Years			FY 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 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(†)	-	-	12.834	-	-	-	213.316	19	4.053	428.172	58	24.834	-	-	-	428.172	58	24.834
Subtotal: Recurring Cost	-	-	*12.834*	-	-	-	-	-	*4.053*	-	-	*24.834*	-	-	-	-	-	*24.834*
Subtotal: Hardware Cost	**-**	**-**	***12.834***	**-**	**-**	**-**	**-**	**-**	***4.053***	**-**	**-**	***24.834***	**-**	**-**	**-**	**-**	**-**	***24.834***
Package Fielding Cost																		
Recurring Cost																		
Initial Spares/Repair Parts	-	-	2.810	-	-	-	-	-	2.828	-	-	7.000	-	-	-	-	-	7.000
New Equipment Training	-	-	0.320	-	-	-	-	-	3.029	-	-	-	-	-	-	-	-	-
Con/Integrated Logistics Support	-	-	0.726	-	-	-	-	-	5.301	-	-	-	-	-	-	-	-	-
Fielding initial support	-	-	-	-	-	-	-	-	4.543	-	-	6.000	-	-	-	-	-	6.000
Subtotal: Recurring Cost	-	-	*3.856*	-	-	-	-	-	*15.701*	-	-	*13.000*	-	-	-	-	-	*13.000*
Subtotal: Package Fielding Cost	**-**	**-**	***3.856***	**-**	**-**	**-**	**-**	**-**	***15.701***	**-**	**-**	***13.000***	**-**	**-**	**-**	**-**	**-**	***13.000***
Support - Program Management Cost																		
Government Management	-	-	1.855	-	-	0.274	-	-	1.941	-	-	3.000	-	-	-	-	-	3.000
Subtotal: Support - Program Management Cost	**-**	**-**	***1.855***	**-**	**-**	***0.274***	**-**	**-**	***1.941***	**-**	**-**	***3.000***	**-**	**-**	**-**	**-**	**-**	***3.000***

Exhibit P-5, Cost Analysis: PB 2019 Army		Date: February 2018
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:

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

Cost Elements	Prior Years			FY 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 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	220.774	84	18.545	-	0	0.274	1,141.842	19	21.695	704.034	58	40.834	-	-	-	704.034	58	40.834

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2019 Army		Date: February 2018
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	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
HMDS GPR(†)		2019	Chemring Sensors & Eletronic / Charlotte, NC	SS / IDIQ	Charlotte, NC	May 2019	Oct 2019	58	428.170			

(†) indicates the presence of a P-21

Exhibit P-21, Production Schedule: PB 2019 Army		Date: February 2018
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 (Units in Each)							Fiscal Year 2019												Fiscal Year 2020												BALANCE
										Calendar Year 2019														Calendar Year 2020									
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2018	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
HMDS GPR																															
	1	2019	ARMY	58	0	58								A -	-	-	-	-	8	8	8	8	8	8	8	2					0
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2019 Army		Date: February 2018
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)							
					Initial				Reorder			
		MSR For 2019	1-8-5 For 2019	MAX For 2019	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	2	4	8	2	1	5	6	2	1	5	6

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).

Exhibit P-40, Budget Line Item Justification: PB 2019 Army	Date: February 2018
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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	80.610	3.531	4.516	4.029	4.850	8.879	12.315	9.891	18.601	18.975	-	157.318
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	80.610	3.531	4.516	4.029	4.850	8.879	12.315	9.891	18.601	18.975	-	157.318
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**80.610**	**3.531**	**4.516**	**4.029**	**4.850**	**8.879**	**12.315**	**9.891**	**18.601**	**18.975**	**-**	**157.318**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost *($ in Thousands)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Thousands)*	-	235.400	322.571	251.813	970.000	422.810	513.125	824.250	744.040	592.969	-	1,100.126

Description:

This Robotic Combat Support System (RCSS) Budget line procures the M160 Mine Flail and the Route Clearance and Interrogation System (RCIS) Type I.

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.

The Route Clearance and Interrogation System (RCIS) Type I and Type II will enable an operator to semi-autonomously control (tele-operate) a High Mobility Engineering Excavator (HMEE) and an RG-31, Medium Mine Protected Vehicle. The RCIS Type I enables the Soldier to semi-autonomously control a HMEE, enabling operators to interrogate, classify and excavate deep buried explosive hazards, Improvised Explosive Devices (IEDs), and caches in a wide range of road surfaces and soil conditions from a standoff distance for Soldier protection. The RCIS Type I AAO is 266. RCIS procurement is scheduled to start in FY20.

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023
Army	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	1.140	1.000	1.531	4.850	6.381	10.490	9.891	18.601	9.488
ANG	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	1.177	1.506	1.773	-	1.773	1.825	-	-	5.882
AR	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	1.214	2.010	0.725	-	0.725	-	-	-	3.605
Total:	**Quantity**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**

Exhibit P-40, Budget Line Item Justification: PB 2019 Army		Date: February 2018
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		

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023
Secondary Distribution	Total Obligation Authority	3.531	4.516	4.029	4.850	8.879	12.315	9.891	18.601	18.975

Exhibit P-40, Budget Line Item Justification: PB 2019 Army	Date: February 2018
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

Exhibits Schedule					Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 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	M80400 / Robotic Combat Support System (RCSS)	P-5a	B		- / 80.610	- / 3.531	- / 4.516	- / 4.029	- / 4.850	- / 8.879
P-40	**Total Gross/Weapon System Cost**				**- / 80.610**	**- / 3.531**	**- / 4.516**	**- / 4.029**	**- / 4.850**	**- / 8.879**

*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 2019 Base procurement dollars in the amount of $4.029 million supports Total Package Fielding of M160s to Army IBCTs / National Guard / Reserve Area Clearance Platoons, M160 Technical Manual Development, New Equipment Training, Increased PM Fielding Staff, and provides Contractor Logistics Support (CLS) for maintenance actions of fielded M160s. FY 2019 Base procurement funding request was reduced by $1.046 million to account for the availability of prior year execution balances.

FY 2019 OCO procurement dollars in the amount of $4.850 million will procure eight M160s which were destroyed in threatre and sent to support an approved Operation Needs Statement (ONS), restoring the program Army Acquisition Objective (AAO).

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.

Exhibit P-5, Cost Analysis: PB 2019 Army		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 20	**P-1 Line Item Number / Title:** 4865M80400 / Robotic Combat Support System (RCSS)	**Item Number / Title [DODIC]:** M80400 / Robotic Combat Support System (RCSS)
ID Code (A=Service Ready, B=Not Service Ready) : B		**MDAP/MAIS Code:**

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	80.610	3.531	4.516	4.029	4.850	8.879
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	80.610	3.531	4.516	4.029	4.850	8.879
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**80.610**	**3.531**	**4.516**	**4.029**	**4.850**	**8.879**
(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)*	-	235.400	322.571	251.813	970.000	422.810

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

Cost Elements	Prior Years			FY 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 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																		
M160 Mech Anti-Personnel Mine Clear System(†)	676.417	72	48.702	-	-	-	-	-	-	-	-	-	606.250	8	4.850	606.250	8	4.850
M160 Total Package Fielding	-	-	-	-	-	1.570	187.500	14	2.625	125.000	16	2.000	-	-	-	125.000	16	2.000
M160 ECPs	-	-	-	-	-	-	-	-	-	-	-	1.029	-	-	-	-	-	1.029
M160 Initial Spares & Repair Parts	-	-	4.208	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
M160 Crew Radio Kits	-	-	12.809	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
M160 Transportation	-	-	3.378	-	-	0.050	-	-	-	-	-	-	-	-	-	-	-	-
M160 System Technical Support	2,161.500	2	4.323	-	-	0.150	-	-	0.650	-	-	-	-	-	-	-	-	-
M160 PM Support	-	-	7.190	-	-	1.761	-	-	1.241	-	-	1.000	-	-	-	-	-	1.000
Subtotal: Recurring Cost	-	-	*80.610*	-	-	*3.531*	-	-	*4.516*	-	-	*4.029*	-	-	*4.850*	-	-	*8.879*
Subtotal: Flyaway Cost	**-**	**-**	***80.610***	**-**	**-**	***3.531***	**-**	**-**	***4.516***	**-**	**-**	***4.029***	**-**	**-**	***4.850***	**-**	**-**	***8.879***
Gross/Weapon System Cost	**-**	**-**	**80.610**	**235.400**	**-**	**3.531**	**322.571**	**-**	**4.516**	**251.813**	**-**	**4.029**	**970.000**	**-**	**4.850**	**422.810**	**-**	**8.879**

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Army	Quantity	-	-	-	-	-

Exhibit P-5, Cost Analysis: PB 2019 Army		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 20	**P-1 Line Item Number / Title:** 4865M80400 / Robotic Combat Support System (RCSS)	**Item Number / Title [DODIC]:** M80400 / Robotic Combat Support System (RCSS)
ID Code (A=Service Ready, B=Not Service Ready) : B		**MDAP/MAIS Code:**

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
	Total Obligation Authority	1.140	1.000	1.531	4.850	6.381
ANG	Quantity	-	-	-	-	-
	Total Obligation Authority	1.177	1.506	1.773	-	1.773
AR	Quantity	-	-	-	-	-
	Total Obligation Authority	1.214	2.010	0.725	-	0.725
Total: Secondary Distribution	**Quantity**	**-**	**-**	**-**	**-**	**-**
	Total Obligation Authority	**3.531**	**4.516**	**4.029**	**4.850**	**8.879**

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2019 Army		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 20	P-1 Line Item Number / Title: 4865M80400 / Robotic Combat Support System (RCSS)	Item Number / Title [DODIC]: M80400 / Robotic Combat Support System (RCSS)

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
M160 Mech Anti-Personnel Mine Clear System	✓	2019	Dok-ing / Croatia	SS / FP	Warren, MI	Feb 2019	Apr 2019	8	606.250			

Remarks:
FY 2019 OCO procurement dollars in the amount of $4.850 million will procure eight M160s

Exhibit P-40, Budget Line Item Justification: PB 2019 Army	Date: February 2018
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):	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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	14.869	1.949	10.073	14.208	-	14.208	14.289	15.779	29.702	23.652	-	124.521
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	14.869	1.949	10.073	14.208	-	14.208	14.289	15.779	29.702	23.652	-	124.521
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**14.869**	**1.949**	**10.073**	**14.208**	**-**	**14.208**	**14.289**	**15.779**	**29.702**	**23.652**	**-**	**124.521**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost *($ in Thousands)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Thousands)*	81.251	177.182	165.131	182.154	-	182.154	183.192	183.477	182.221	179.182	-	157.223

Description:

The Man Transportable Robotic System, Talon 5a robot is a key enabler to Explosive Ordnance Disposal (EOD) soldiers, providing 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 result of the recapitalization rebuild is a system with the same model and a new life. These robots were not reset subsequent to Operation Enduring Freedom. The fleet will bridge the capability gap through Fiscal Year 2028 when the program of record Man Transportable Robotic System Increment II is field to EOD units.

The Common Robotic System, Heavy (CRS(H)) is a modular large-sized system that provides enhanced protection to the 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 Explosive Ordnance Disposal (EOD) and Chemical Biological Radiological and Nuclear (CBRN) units.

The Army Acquisition Objective (AAO) for MTRS MK II robots is 587.
The Army Acquisition Objective (AAO) for CRS(H) robots is 225.

This SSN transitioned from Program Executive Office, Ammunition (PEO AMMO), Project Manager Close Combat Systems (PM CCS) to Program Executive Office, Combat Support and Combat Service Support (PEO CS&CSS), Robot Logistics Support Center (RLSC), in FY 2016, per Army Acquisition Executive (AAE) memorandum dated 28 July 2014.

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023
Army	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	1.949	10.073	14.208	-	14.208	14.289	15.779	15.734	18.864
ANG	Quantity	-	-	-	-	-	-	-	-	-

Exhibit P-40, Budget Line Item Justification: PB 2019 Army		Date: February 2018
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):	**Program Elements for Code B Items:** N/A	**Other Related Program Elements:** N/A
Line Item MDAP/MAIS Code: N/A		

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023
	Total Obligation Authority	-	-	-	-	-	-	-	13.968	4.788
Total: Secondary Distribution	**Quantity**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
	Total Obligation Authority	**1.949**	**10.073**	**14.208**	**-**	**14.208**	**14.289**	**15.779**	**29.702**	**23.652**

Exhibit P-40, Budget Line Item Justification: PB 2019 Army	Date: February 2018
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):	**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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 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			- / 14.869	- / 1.949	- / 10.073	- / 14.208	- / -	- / 14.208
P-40	**Total Gross/Weapon System Cost**				**- / 14.869**	**- / 1.949**	**- / 10.073**	**- / 14.208**	**- / -**	**- / 14.208**

*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 2019 Base procurement dollars in the amount of $14.208 million supports the recapitalization of 78 Man Transportable Robotic System (MTRS) MK II platforms. The currently fielded MTRS MK II platforms have obsolescence issues due to software and electrical unit upgrades. Recapitalization of the MTRS MKII platforms will reduce sustainment costs and accommodate the integration of interoperable payloads. Completion of the program will extend the life of the system through the next decade until this bridge capability is replaced by the program of record MTRS Inc II in FY 2028.

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.

Exhibit P-5, Cost Analysis: PB 2019 Army		Date: February 2018
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) :	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	14.869	1.949	10.073	14.208	-	14.208
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	14.869	1.949	10.073	14.208	-	14.208
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**14.869**	**1.949**	**10.073**	**14.208**	**-**	**14.208**
(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)*	81.251	177.182	165.131	182.154	-	182.154

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

Cost Elements	Prior Years			FY 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 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)(†)	154.885	96	14.869	152.636	11	1.679	140.082	61	8.545	156.718	78	12.224	-	-	-	156.718	78	12.224
Subtotal: Recurring Cost	-	-	*14.869*	-	-	*1.679*	-	-	*8.545*	-	-	*12.224*	-	-	-	-	-	*12.224*
Subtotal: Hardware Cost	**-**	**-**	***14.869***	**-**	**-**	***1.679***	**-**	**-**	***8.545***	**-**	**-**	***12.224***	**-**	**-**	**-**	**-**	**-**	***12.224***
Package Fielding Cost																		
Recurring Cost																		
New Equipment Training (NET)	-	-	-	-	-	0.005	-	-	0.076	-	-	0.099	-	-	-	-	-	0.099
Subtotal: Recurring Cost	-	-	-	-	-	*0.005*	-	-	*0.076*	-	-	*0.099*	-	-	-	-	-	*0.099*
Subtotal: Package Fielding Cost	**-**	**-**	**-**	**-**	**-**	***0.005***	**-**	**-**	***0.076***	**-**	**-**	***0.099***	**-**	**-**	**-**	**-**	**-**	***0.099***
Support - Initial Spares and Repair Parts Cost																		
Initial Spares and Repair Parts	-	-	-	-	-	0.045	-	-	1.211	-	-	1.544	-	-	-	-	-	1.544
Subtotal: Support - Initial Spares and Repair Parts Cost	**-**	**-**	**-**	**-**	**-**	***0.045***	**-**	**-**	***1.211***	**-**	**-**	***1.544***	**-**	**-**	**-**	**-**	**-**	***1.544***
Support - Program Management Cost																		
Government Management	-	-	-	-	-	0.060	-	-	0.080	-	-	0.150	-	-	-	-	-	0.150

Exhibit P-5, Cost Analysis: PB 2019 Army		Date: February 2018
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) :		**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 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 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	-	-	-	-	-	0.160	-	-	0.161	-	-	0.191	-	-	-	-	-	0.191
Subtotal: Support - Program Management Cost	**-**	**-**	**-**	**-**	**-**	***0.220***	**-**	**-**	***0.241***	**-**	**-**	***0.341***	**-**	**-**	**-**	**-**	**-**	***0.341***
Gross/Weapon System Cost	**81.251**	**-**	**14.869**	**177.182**	**-**	**1.949**	**165.131**	**-**	**10.073**	**182.154**	**-**	**14.208**	**-**	**-**	**-**	**182.154**	**-**	**14.208**

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Army	Quantity	-	-	-	-	-
	Total Obligation Authority	1.949	10.073	14.208	-	14.208
Total: Secondary Distribution	**Quantity**	**-**	**-**	**-**	**-**	**-**
	Total Obligation Authority	**1.949**	**10.073**	**14.208**	**-**	**14.208**

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2019 Army		Date: February 2018
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	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
Man Transportable Robotic System (MTRS)(†)		2017	Robot Log Spt Center / Harrison Twp, MI	C / IDIQ	Warren, MI	Apr 2017	Oct 2017	11	152.640	Y		
Man Transportable Robotic System (MTRS)(†)		2018	Robot Log Spt Center / Harrison Twp, MI	C / IDIQ	Warren, MI	Dec 2017	Jun 2018	61	140.080	Y		
Man Transportable Robotic System (MTRS)(†)		2019	Robot Log Spt Center / Harrison Twp, MI	SS / FFP	Warren, MI	Nov 2018	May 2019	78	156.720	Y		

(†) indicates the presence of a P-21

Remarks:
The PM Force Projection/Robot Logistics Support Center is the lead service for EOD Recap. Systems procured prior to FY 2016 were managed by Program Executive Office Ammunition (PEO Ammo) and are not comparable to the current procurement program managed by Robot Logistics Support Center.

Exhibit P-21, Production Schedule: PB 2019 Army		Date: February 2018
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 (Units in Each)							Fiscal Year 2017												Fiscal Year 2018												BALANCE
										Calendar Year 2017														Calendar Year 2018									
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2016	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
Man Transportable Robotic System (MTRS)																															
Prior Years Deliveries: 96																															
	1	2017	ARMY	11	0	11							A -	-	-	-	-	-	1	1	1	1	1	2	2	2					0
	1	2018	ARMY	61	0	61															A -	-	-	-	-	-	1	1	1	2	56
	1	2019	ARMY	78	0	78																									78
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2019 Army		Date: February 2018
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 (Units in Each)							Fiscal Year 2019												Fiscal Year 2020												BALANCE
										Calendar Year 2019														Calendar Year 2020									
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2018	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
Man Transportable Robotic System (MTRS)																															
Prior Years Deliveries: 96																															
	1	2017	ARMY	11	11	0																									0
	1	2018	ARMY	61	5	56	3	3	7	7	9	9	9	9																	0
	1	2019	ARMY	78	0	78		A -	-	-	-	-	-	6	6	6	6	6	6	7	7	7	7	7	7							0
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP		

Exhibit P-21, Production Schedule: PB 2019 Army		Date: February 2018
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)							
					Initial				Reorder			
		MSR For 2019	1-8-5 For 2019	MAX For 2019	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	Robot Log Spt Center - Harrison Twp, MI	1	10	20	0	7	6	13	0	2	6	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).

Exhibit P-40, Budget Line Item Justification: PB 2019 Army	Date: February 2018
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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	-	5.515	3.000	31.456	-	31.456	59.442	114.264	144.501	219.095	-	577.273
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	-	5.515	3.000	31.456	-	31.456	59.442	114.264	144.501	219.095	-	577.273
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**-**	**5.515**	**3.000**	**31.456**	**-**	**31.456**	**59.442**	**114.264**	**144.501**	**219.095**	**-**	**577.273**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost *($ in Thousands)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Thousands)*	-	2,757.500	15.000	27.763	-	27.763	44.228	60.234	105.475	103.298	-	71.560

Description:

The Soldier Borne Sensor (SBS) is a situational awareness system, providing the squad with an organic "quick look" capability for real-time video feeds of larger, complex, and restrictive environments. SBS reduces exposure to potential threats and enhances freedom of maneuver by providing actionable information to support decisions at the lowest echelon. The Army Acquisition Objective (AAO) for this program is 7,175.

The Man-Transportable Robotic System (MTRS) Inc. II is a modular medium-sized system providing a multitude of standoff capabilities through different payloads for the Army. These capabilities include detect and confirm presence, identify disposition, and counter hazards by providing a platform for payloads in support of current and future mission requirements. 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. Approved Acquisition Objective (AAO) of 1,210.

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 open architecture common mobility platform allowing for future capability growth. The CRS(I) will be designed so the operator can 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 Warfighting Force by providing standoff to the Warfighter during major combat, stability, and homeland security operations. The Approved Acquisition Objective (AAO) 3,258 systems.

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023
Army	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	5.515	3.000	31.456	-	31.456	50.098	92.824	127.221	185.339
ANG	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	-	-	-	-	-	4.672	10.720	8.640	16.878
AR	Quantity	-	-	-	-	-	-	-	-	-

Exhibit P-40, Budget Line Item Justification: PB 2019 Army			Date: February 2018
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			

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023
	Total Obligation Authority	-	-	-	-	-	4.672	10.720	8.640	16.878
Total: Secondary Distribution	**Quantity**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
	Total Obligation Authority	**5.515**	**3.000**	**31.456**	**-**	**31.456**	**59.442**	**114.264**	**144.501**	**219.095**

Exhibit P-40, Budget Line Item Justification: PB 2019 Army	Date: February 2018
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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 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	G99595 / Common Robotic System-Individual (CRS-I)	P-5a			- / -	- / -	- / -	- / 3.161	- / -	- / 3.161
P-5	R67050 / Man Transportable Robotic Sys Inc II (MTRS Inc II)	P-5a, P-21	B		- / -	- / 5.515	- / -	- / 6.615	- / -	- / 6.615
P-5	W63798 / Soldier Borne Sensor (SBS)	P-5a, P-21			- / -	- / -	200 / 3.000	1,084 / 21.680	- / -	1,084 / 21.680
P-40	**Total Gross/Weapon System Cost**				**- / -**	**- / 5.515**	**- / 3.000**	**- / 31.456**	**- / -**	**- / 31.456**

*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 2019 Base procurement dollars in the amount of $3.161 million for the Common Robotic System (Individual) {(CRS (I)} supports the procurement of 20 Low Rate Initial Production (LRIP) assets, engineering,logistics data, and System Engineering Program Management (SEPM).

FY 2019 Base procurement dollars in the amount of $6.615 million for the Man Transportable Robotics System Increment II (MTRS Inc II) supports the procurement of 43 production systems, engineering and logistics data and System Engineering Program Management (SEPM).

FY 2019 Base procurement dollars, in the amount of $21.680 million, supports the procurement of 1,084 SBS systems.

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.

Exhibit P-5, Cost Analysis: PB 2019 Army		Date: February 2018
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) :		**MDAP/MAIS Code:**

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	-	-	-	3.161	-	3.161
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	-	-	-	3.161	-	3.161
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**-**	**-**	**-**	**3.161**	**-**	**3.161**
(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)*	-	-	-	131.708	-	131.708

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

Cost Elements	Prior Years			FY 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 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 Robotic Systems (Individual)(†)	-	-	-	-	-	-	-	-	-	150.000	20	3.000	-	-	-	150.000	20	3.000
Subtotal: Recurring Cost	-	-	-	-	-	-	-	-	-	-	-	*3.000*	-	-	-	-	-	*3.000*
Subtotal: Hardware Cost	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***3.000***	**-**	**-**	**-**	**-**	**-**	***3.000***
Support - Program Management Cost																		
Government Management	-	-	-	-	-	-	-	-	-	-	-	0.161	-	-	-	-	-	0.161
Subtotal: Support - Program Management Cost	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***0.161***	**-**	**-**	**-**	**-**	**-**	***0.161***
Gross/Weapon System Cost	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**131.708**	**-**	**3.161**	**-**	**-**	**-**	**131.708**	**-**	**3.161**

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Army	Quantity	-	-	-	-	-
	Total Obligation Authority	-	-	3.161	-	3.161
Total: Secondary Distribution	**Quantity**	**-**	**-**	**-**	**-**	**-**
	Total Obligation Authority	**-**	**-**	**3.161**	**-**	**3.161**

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2019 Army		Date: February 2018
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	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
Common Robotic Systems (Individual)		2019	TBD / TBD	C / FFP	Warren MI	Mar 2019	Jun 2019	20	150.000	N		

Exhibit P-5, Cost Analysis: PB 2019 Army		Date: February 2018
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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	-	5.515	-	6.615	-	6.615
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	-	5.515	-	6.615	-	6.615
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**-**	**5.515**	**-**	**6.615**	**-**	**6.615**
(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)*	-	2,757.500	-	264.600	-	264.600

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

Cost Elements	Prior Years			FY 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 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(†)	-	-	-	-	-	-	-	-	-	120.000	43	5.160	-	-	-	120.000	43	5.160
TALON 5a Robots(†)	-	-	-	156.000	2	0.312	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Recurring Cost	-	-	-	-	-	*0.312*	-	-	-	-	-	*5.160*	-	-	-	-	-	*5.160*
Subtotal: Hardware Cost	**-**	**-**	**-**	**-**	**-**	***0.312***	**-**	**-**	**-**	**-**	**-**	***5.160***	**-**	**-**	**-**	**-**	**-**	***5.160***
Support - Data Cost																		
Technical Publications	-	-	-	-	-	4.903	-	-	-	-	-	0.137	-	-	-	-	-	0.137
Subtotal: Support - Data Cost	**-**	**-**	**-**	**-**	**-**	***4.903***	**-**	**-**	**-**	**-**	**-**	***0.137***	**-**	**-**	**-**	**-**	**-**	***0.137***
Support - Program Management Cost																		
Government Management	-	-	-	-	-	0.300	-	-	-	-	-	1.318	-	-	-	-	-	1.318
Subtotal: Support - Program Management Cost	**-**	**-**	**-**	**-**	**-**	***0.300***	**-**	**-**	**-**	**-**	**-**	***1.318***	**-**	**-**	**-**	**-**	**-**	***1.318***
Gross/Weapon System Cost	**-**	**-**	**-**	**2,757.500**	**-**	**5.515**	**-**	**-**	**-**	**264.600**	**-**	**6.615**	**-**	**-**	**-**	**264.600**	**-**	**6.615**

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Army	Quantity	-	-	-	-	-
	Total Obligation Authority	5.515	-	6.615	-	6.615

Exhibit P-5, Cost Analysis: PB 2019 Army		Date: February 2018
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:

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Total: Secondary Distribution	Quantity	-	-	-	-	-
	Total Obligation Authority	5.515	-	6.615	-	6.615

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2019 Army		Date: February 2018
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	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
MTRS Robot		2017	Endeavor / Chelmsford, MA	C / FFP	Warren, MI	Sep 2017	Oct 2017	0	0.000	N		
MTRS Robot(†)		2019	Endeavor / Chelmsford, MA	C / FFP	Warren, MI	Mar 2019	Sep 2019	43	120.000	N		
TALON 5a Robots		2017	Robot Log Spt Center / Harrison Twp	SS / FFP	Harrison Township, MI	Jun 2017	Jul 2017	2	156.000	N		

(†) indicates the presence of a P-21

Exhibit P-21, Production Schedule: PB 2019 Army		Date: February 2018
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 (Units in Each)							Fiscal Year 2017												Fiscal Year 2018												BALANCE
										Calendar Year 2017														Calendar Year 2018									
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2016	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
MTRS Robot																															
	1	2019	ARMY	43	0	43																									43
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2019 Army		Date: February 2018
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 (Units in Each)							Fiscal Year 2019												Fiscal Year 2020												BALANCE
										Calendar Year 2019														Calendar Year 2020									
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2018	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
MTRS Robot																															
	1	2019	ARMY	43	0	43						A -	-	-	-	-	-	5	5	5	5	5	5	5	8						0
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2019 Army		Date: February 2018
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)							
					Initial				Reorder			
		MSR For 2019	1-8-5 For 2019	MAX For 2019	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	5	30	60	0	6	6	12	0	6	6	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).

Exhibit P-5, Cost Analysis: PB 2019 Army		Date: February 2018
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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Procurement Quantity *(Units in Each)*	-	-	200	1,084	-	1,084
Gross/Weapon System Cost *($ in Millions)*	-	-	3.000	21.680	-	21.680
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	-	-	3.000	21.680	-	21.680
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**-**	**-**	**3.000**	**21.680**	**-**	**21.680**
(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)*	-	-	15.000	20.000	-	20.000

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

Cost Elements	Prior Years			FY 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 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(†)	-	-	-	-	-	-	10.260	200	2.052	15.923	1,084	17.260	-	-	-	15.923	1,084	17.260
Program Management Support	-	-	-	-	-	-	-	-	0.324	-	-	0.773	-	-	-	-	-	0.773
Soldier Borne Sensor Fielding	-	-	-	-	-	-	-	-	0.546	-	-	2.645	-	-	-	-	-	2.645
Ancillary Support	-	-	-	-	-	-	-	-	0.078	-	-	0.563	-	-	-	-	-	0.563
Engineering Support	-	-	-	-	-	-	-	-	-	-	-	0.438	-	-	-	-	-	0.438
Subtotal: Recurring Cost	-	-	-	-	-	-	-	-	*3.000*	-	-	*21.680*	-	-	-	-	-	*21.680*
Subtotal: Flyaway Cost	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***3.000***	**-**	**-**	***21.680***	**-**	**-**	**-**	**-**	**-**	***21.680***
Gross/Weapon System Cost	**-**	**-**	**-**	**-**	**-**	**-**	**15.000**	**200**	**3.000**	**20.000**	**1,084**	**21.680**	**-**	**-**	**-**	**20.000**	**1,084**	**21.680**

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Army	Quantity	-	200	1,084	-	1,084
	Total Obligation Authority	-	3.000	21.680	-	21.680
Total: Secondary Distribution	**Quantity**	**-**	**200**	**1,084**	**-**	**1,084**
	Total Obligation Authority	**-**	**3.000**	**21.680**	**-**	**21.680**

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2019 Army		Date: February 2018
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	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
Soldier Borne Sensor Hardware(†)		2018	TBS / TBD	C / IDIQ	DSCP	Jun 2018	Feb 2019	200	10.260	Y		
Soldier Borne Sensor Hardware(†)		2019	TBS / TBD	C / IDIQ	DSCP	Mar 2019	Jun 2019	1,084	15.920	Y		

(†) indicates the presence of a P-21

Exhibit P-21, Production Schedule: PB 2019 Army		Date: February 2018
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 (Units in Each)							Fiscal Year 2018												Fiscal Year 2019												BALANCE
							Calendar Year 2018												Calendar Year 2019													
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2017	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
Soldier Borne Sensor Hardware																															
	1	2018	ARMY	200	0	200									A -	-	-	-	-	-	-	-	38	38	43	43	38				0
	1	2019	ARMY	1,084	0	1,084																		A -	-	-	38	38	38	80	890
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2019 Army		Date: February 2018
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 (Units in Each)							Fiscal Year 2020												Fiscal Year 2021												BALANCE
							Calendar Year 2020												Calendar Year 2021													
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2019	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
Soldier Borne Sensor Hardware																															
	1	2018	ARMY	200	200	0																									0
	1	2019	ARMY	1,084	194	890	88	98	105	105	110	110	110	164																	0
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2019 Army		Date: February 2018
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)							
					Initial				Reorder			
		MSR For 2019	1-8-5 For 2019	MAX For 2019	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 - TBD	38	100	200	2	9	8	17	6	6	3	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).

Exhibit P-40, Budget Line Item Justification: PB 2019 Army	Date: February 2018
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:** 5900MA9200 / Explosive Ordnance Disposal Eqpmt (EOD EQPMT)
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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	490	700	-	-	-	-	-	-	277	277	-	1,744
Gross/Weapon System Cost *($ in Millions)*	574.817	4.547	-	-	-	-	-	-	7.552	7.554	-	594.470
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	574.817	4.547	-	-	-	-	-	-	7.552	7.554	-	594.470
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**574.817**	**4.547**	**-**	**-**	**-**	**-**	**-**	**-**	**7.552**	**7.554**	**-**	**594.470**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost *($ in Thousands)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Thousands)*	1,173.096	6.496	-	-	-	-	-	-	27.264	27.271	-	340.866

Description:

The Explosive Ordnance Disposal (EOD) equipment provides the capability to examine, identify, and defuse ordnance effectively and safely for Homeland Defense and Force Protection throughout the world. This equipment enables EOD soldiers to rapidly and safely render safe Unexploded Ordnance (UXO) and Improvised Explosive Devices (IEDs) that constitute a hazard to friendly operations, installations, personnel, or materiel, and is also used for dismounted operations. EOD equipment will be fielded throughout the active Army and National Guard units.

Decision Support System (DSS) -- Common control station hardware and software for all EOD systems. The Army Acquisition Objective (AAO) for DSS is 700.

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023
Army	Quantity	430	-	-	-	-	-	-	249	249
	Total Obligation Authority	2.793	-	-	-	-	-	-	6.012	6.014
ANG	Quantity	270	-	-	-	-	-	-	28	28
	Total Obligation Authority	1.754	-	-	-	-	-	-	1.540	1.540
Total: Secondary Distribution	**Quantity**	**700**	**-**	**-**	**-**	**-**	**-**	**-**	**277**	**277**
	Total Obligation Authority	**4.547**	**-**	**-**	**-**	**-**	**-**	**-**	**7.552**	**7.554**

Justification:
No FY 2019 PB 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.

Exhibit P-40, Budget Line Item Justification: PB 2019 Army	Date: February 2018
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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	160	80	135	-	-	-	-	-	-	-	-	375
Gross/Weapon System Cost *($ in Millions)*	21.864	5.238	5.847	1.748	0.001	1.749	0.184	-	-	-	-	34.882
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	21.864	5.238	5.847	1.748	0.001	1.749	0.184	-	-	-	-	34.882
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**21.864**	**5.238**	**5.847**	**1.748**	**0.001**	**1.749**	**0.184**	**-**	**-**	**-**	**-**	**34.882**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost *($ in Thousands)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Thousands)*	136.650	65.475	43.311	-	-	-	-	-	-	-	-	93.019

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.

Justification:

FY 2019 Base procurement dollars in the amount of $1.748 million supports initial fielding and deployment of RF RAMS.

FY 2019 OCO procurement dollars in the amount of $0.001 million supports initial fielding and deployment of RF RAMS. FY 2019 OCO includes $0.001 million to support the COCOM requirement for unit equipment sets to deter potential adversaries and support the European Deterrence Initiative.

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.

Exhibit P-40, Budget Line Item Justification: PB 2019 Army	Date: February 2018
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, Countermine 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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	163	0	7	47	-	47	-	-	-	-	-	217
Gross/Weapon System Cost *($ in Millions)*	64.758	0.836	1.530	7.829	-	7.829	1.309	1.185	0.840	-	-	78.287
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	64.758	0.836	1.530	7.829	-	7.829	1.309	1.185	0.840	-	-	78.287
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**64.758**	**0.836**	**1.530**	**7.829**	**-**	**7.829**	**1.309**	**1.185**	**0.840**	**-**	**-**	**78.287**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost *($ in Thousands)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Thousands)*	397.288	-	218.571	166.574	-	166.574	-	-	-	-	-	360.770

Description:

The <$5M Countermine Equipment line covers the procurement of countermine 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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023
Army	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	0.836	-	-	-	-	1.309	1.185	0.840	-
ANG	Quantity	-	6	27	-	27	-	-	-	-
	Total Obligation Authority	-	1.089	3.601	-	3.601	-	-	-	-
AR	Quantity	-	1	20	-	20	-	-	-	-
	Total Obligation Authority	-	0.441	4.228	-	4.228	-	-	-	-
Total: Secondary Distribution	**Quantity**	**-**	**7**	**47**	**-**	**47**	**-**	**-**	**-**	**-**
	Total Obligation Authority	**0.836**	**1.530**	**7.829**	**-**	**7.829**	**1.309**	**1.185**	**0.840**	**-**

Exhibit P-40, Budget Line Item Justification: PB 2019 Army	Date: February 2018
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, Countermine 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

Exhibits Schedule					Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 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	MA7700 / < $5M, Countermine Equipment	P-5a, P-21	A		163 / 64.758	0 / 0.836	7 / 1.530	47 / 7.829	- / -	47 / 7.829
P-40	**Total Gross/Weapon System Cost**				**163 / 64.758**	**0 / 0.836**	**7 / 1.530**	**47 / 7.829**	**- / -**	**47 / 7.829**

*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 2019 Procurement dollars in the amount of $7.829 million supports the procurement of 47 M303 Blasting Demolition Kits. It also supports initial fielding and deployment of Blasting Demolition Kits to combat engineers. Requirements support approved Combatant Commander Operational Plans, Homeland Defense, and other directed missions. Training requirements support individual and collective training of Active and Reserve Component forces at Army schools, home station and the combined training centers.

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.

Exhibit P-5, Cost Analysis: PB 2019 Army		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 20	**P-1 Line Item Number / Title:** 5943MA7700 / < $5M, Countermine Equipment	**Item Number / Title [DODIC]:** MA7700 / < $5M, Countermine Equipment
ID Code (A=Service Ready, B=Not Service Ready) : A		**MDAP/MAIS Code:**

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Procurement Quantity *(Units in Each)*	163	0	7	47	-	47
Gross/Weapon System Cost *($ in Millions)*	64.758	0.836	1.530	7.829	-	7.829
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	64.758	0.836	1.530	7.829	-	7.829
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**64.758**	**0.836**	**1.530**	**7.829**	**-**	**7.829**
(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)*	397.288	-	218.571	166.574	-	166.574

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

Cost Elements	Prior Years			FY 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 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																		
M303 BDK/ Individual Hardware Components(†)	175.178	342	59.911	-	-	-	90.000	7	0.630	132.447	47	6.225	-	-	-	132.447	47	6.225
Subtotal: Recurring Cost	-	-	*59.911*	-	-	-	-	-	*0.630*	-	-	*6.225*	-	-	-	-	-	*6.225*
Non Recurring Cost																		
Production Engineering - M303 BDK	-	-	4.443	-	-	0.836	-	-	0.900	-	-	1.204	-	-	-	-	-	1.204
FAT - Blasting Demo Kit	-	-	0.100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Engineering Change Proposal - BDK	-	-	0.104	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Technical Data Package Update - BDK	-	-	0.200	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Non Recurring Cost	-	-	*4.847*	-	-	*0.836*	-	-	*0.900*	-	-	*1.204*	-	-	-	-	-	*1.204*
Subtotal: Hardware Cost	**-**	**-**	***64.758***	**-**	**-**	***0.836***	**-**	**-**	***1.530***	**-**	**-**	***7.429***	**-**	**-**	**-**	**-**	**-**	***7.429***
Support - New Equipment Training (NET) Cost																		
Equipment	-	-	-	-	-	-	-	-	-	-	-	0.400	-	-	-	-	-	0.400

Exhibit P-5, Cost Analysis: PB 2019 Army		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 20	**P-1 Line Item Number / Title:** 5943MA7700 / < $5M, Countermine Equipment	**Item Number / Title [DODIC]:** MA7700 / < $5M, Countermine Equipment
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 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 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)
Subtotal: Support - New Equipment Training (NET) Cost	-	-	-	-	-	-	-	-	-	-	-	***0.400***	-	-	-	-	-	***0.400***
Gross/Weapon System Cost	**397.288**	**163**	**64.758**	**-**	**0**	**0.836**	**218.571**	**7**	**1.530**	**166.574**	**47**	**7.829**	**-**	**-**	**-**	**166.574**	**47**	**7.829**

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Army	Quantity	-	-	-	-	-
	Total Obligation Authority	0.836	-	-	-	-
ANG	Quantity	-	6	27	-	27
	Total Obligation Authority	-	1.089	3.601	-	3.601
AR	Quantity	-	1	20	-	20
	Total Obligation Authority	-	0.441	4.228	-	4.228
Total: Secondary Distribution	**Quantity**	**0**	**7**	**47**	**-**	**47**
	Total Obligation Authority	**0.836**	**1.530**	**7.829**	**-**	**7.829**

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2019 Army		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 20	**P-1 Line Item Number / Title:** 5943MA7700 / < $5M, Countermine Equipment	**Item Number / Title [DODIC]:** MA7700 / < $5M, Countermine Equipment

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
M303 BDK/Individual Hardware Components(†)		2018	Spectra Technologies; LLC / Camden, AR	C / IDIQ	Picatinny Arsenal, NJ	Mar 2018	Mar 2019	7	90.000			
M303 BDK/Individual Hardware Components(†)		2019	Spectra Technologies; LLC / Camden, AR	C / IDIQ	Picatinny Arsenal, NJ	Mar 2019	Mar 2020	47	132.450			

(†) indicates the presence of a P-21

Exhibit P-21, Production Schedule: PB 2019 Army		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 20	**P-1 Line Item Number / Title:** 5943MA7700 / < $5M, Countermine Equipment	**Item Number / Title [DODIC]:** MA7700 / < $5M, Countermine Equipment

Cost Elements (Units in Each)							Fiscal Year 2018												Fiscal Year 2019												BALANCE
							Calendar Year 2018												Calendar Year 2019													
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2017	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
M303 BDK/Individual Hardware Components																															
Prior Years Deliveries: 342																															
	1	2018	ARMY	7	0	7						A -	-	-	-	-	-	-	-	-	-	-	-	7							0
	1	2019	ARMY	47	0	47																		A -	-	-	-	-	-	-	47
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2019 Army		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 20	**P-1 Line Item Number / Title:** 5943MA7700 / < $5M, Countermine Equipment	**Item Number / Title [DODIC]:** MA7700 / < $5M, Countermine Equipment

Cost Elements (Units in Each)							Fiscal Year 2020												Fiscal Year 2021												BALANCE
										Calendar Year 2020														Calendar Year 2021									
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2019	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
M303 BDK/Individual Hardware Components																															
Prior Years Deliveries: 342																															
	1	2018	ARMY	7	7	0																									0
	1	2019	ARMY	47	0	47	-	-	-	-	-	11	11	11	14																0
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2019 Army		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 20	**P-1 Line Item Number / Title:** 5943MA7700 / < $5M, Countermine Equipment	**Item Number / Title [DODIC]:** MA7700 / < $5M, Countermine Equipment

MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Month)			Procurement Leadtime (Months)							
					Initial				Reorder			
		MSR For 2019	1-8-5 For 2019	MAX For 2019	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	Spectra Technologies; LLC - Camden, AR	10	22	35	8	8	18	26	6	6	12	18

Remarks:
FY19: Each delivery will include initial spares for inventory.

"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).

Exhibit P-40, Budget Line Item Justification: PB 2019 Army	Date: February 2018
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):	**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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	410	69	167	272	-	272	162	75	4	219	-	1,378
Gross/Weapon System Cost *($ in Millions)*	8.429	3.567	4.302	5.806	-	5.806	3.916	2.244	0.304	2.584	-	31.152
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	8.429	3.567	4.302	5.806	-	5.806	3.916	2.244	0.304	2.584	-	31.152
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**8.429**	**3.567**	**4.302**	**5.806**	**-**	**5.806**	**3.916**	**2.244**	**0.304**	**2.584**	**-**	**31.152**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost *($ in Thousands)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Thousands)*	20.559	51.696	25.760	21.346	-	21.346	24.173	29.920	76.000	11.799	-	22.607

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 7-person I-CRC, 15-person I-CAC, and Common Motor replace current outdated legacy systems. The RIB adds a new capability to the field. All systems support both engineer and special forces 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. Army Acquisition Objective (AAO) for FoBaM is: 7-person I-CRC 394, 15-person I-CAC 528, Common Motor 932, and RIB 19.

Funds in this program are realignment of funds from program Items Less than $5M, SSN ML5301 for more efficient, effective program management.

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023
Army	Quantity	25	73	114	-	114	31	33	4	97
	Total Obligation Authority	1.779	2.696	2.661	-	2.661	1.587	1.132	0.304	0.739
ANG	Quantity	35	69	119	-	119	92	42	-	61
	Total Obligation Authority	1.624	1.181	2.269	-	2.269	1.426	1.112	-	0.923
AR	Quantity	9	25	39	-	39	39	-	-	61
	Total Obligation Authority	0.164	0.425	0.876	-	0.876	0.903	-	-	0.922
Total: Secondary Distribution	**Quantity**	**69**	**167**	**272**	**-**	**272**	**162**	**75**	**4**	**219**
	Total Obligation Authority	**3.567**	**4.302**	**5.806**	**-**	**5.806**	**3.916**	**2.244**	**0.304**	**2.584**

Exhibit P-40, Budget Line Item Justification: PB 2019 Army	Date: February 2018
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):	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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 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				253 / 4.667	41 / 0.735	101 / 1.527	140 / 2.667	- / -	140 / 2.667
P-5	R12015 / FoBAM Rigid Inflatable Boat	P-5a			5 / 1.955	4 / 1.946	5 / 1.615	4 / 1.278	- / -	4 / 1.278
P-5	R12016 / FoBAM 7-Man Boat	P-5a			51 / 0.431	12 / 0.518	37 / 0.632	77 / 1.059	- / -	77 / 1.059
P-5	R12028 / FoBAM 15-Man Boat	P-5a			101 / 1.376	12 / 0.368	24 / 0.528	51 / 0.802	- / -	51 / 0.802
P-40	**Total Gross/Weapon System Cost**				**410 / 8.429**	**69 / 3.567**	**167 / 4.302**	**272 / 5.806**	**- / -**	**272 / 5.806**

*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:
FY19 Base procurement dollars in the amount of $5.806 million supports a quantity of 140 Common Motors, 4 RIB, 77 7-person I-CRC, and 51 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.

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.

Exhibit P-5, Cost Analysis: PB 2019 Army		Date: February 2018
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) :	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Procurement Quantity *(Units in Each)*	253	41	101	140	-	140
Gross/Weapon System Cost *($ in Millions)*	4.667	0.735	1.527	2.667	-	2.667
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	4.667	0.735	1.527	2.667	-	2.667
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**4.667**	**0.735**	**1.527**	**2.667**	**-**	**2.667**
(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)*	18.447	17.927	15.119	19.050	-	19.050

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

Cost Elements	Prior Years			FY 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 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	13.000	253	3.289	10.415	41	0.427	13.396	101	1.353	10.881	185	2.013	-	-	-	10.881	185	2.013
Subtotal: Recurring Cost	-	-	*3.289*	-	-	*0.427*	-	-	*1.353*	-	-	*2.013*	-	-	-	-	-	*2.013*
Subtotal: Hardware Cost	**-**	**-**	***3.289***	**-**	**-**	***0.427***	**-**	**-**	***1.353***	**-**	**-**	***2.013***	**-**	**-**	**-**	**-**	**-**	***2.013***
Support - Fielding Cost																		
Fielding	-	-	0.400	-	-	0.054	-	-	0.025	-	-	0.300	-	-	-	-	-	0.300
Subtotal: Support - Fielding Cost	**-**	**-**	***0.400***	**-**	**-**	***0.054***	**-**	**-**	***0.025***	**-**	**-**	***0.300***	**-**	**-**	**-**	**-**	**-**	***0.300***
Support - Production Engineering Cost																		
Production Engineering	-	-	0.100	-	-	0.046	-	-	0.025	-	-	0.042	-	-	-	-	-	0.042
Subtotal: Support - Production Engineering Cost	**-**	**-**	***0.100***	**-**	**-**	***0.046***	**-**	**-**	***0.025***	**-**	**-**	***0.042***	**-**	**-**	**-**	**-**	**-**	***0.042***
Support - Program Management Cost																		
Government Management	-	-	0.878	-	-	0.162	-	-	0.099	-	-	0.271	-	-	-	-	-	0.271
Subtotal: Support - Program Management Cost	**-**	**-**	***0.878***	**-**	**-**	***0.162***	**-**	**-**	***0.099***	**-**	**-**	***0.271***	**-**	**-**	**-**	**-**	**-**	***0.271***
Support - Quality Assurance Cost																		
Quality Assurance	-	-	-	-	-	0.046	-	-	0.025	-	-	0.041	-	-	-	-	-	0.041
Subtotal: Support - Quality Assurance Cost	**-**	**-**	**-**	**-**	**-**	***0.046***	**-**	**-**	***0.025***	**-**	**-**	***0.041***	**-**	**-**	**-**	**-**	**-**	***0.041***
Gross/Weapon System Cost	**18.447**	**253**	**4.667**	**17.927**	**41**	**0.735**	**15.119**	**101**	**1.527**	**19.050**	**140**	**2.667**	**-**	**-**	**-**	**19.050**	**140**	**2.667**

Exhibit P-5, Cost Analysis: PB 2019 Army		Date: February 2018
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) :	MDAP/MAIS Code:	

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Army	Quantity	14	42	55	-	55
	Total Obligation Authority	0.396	0.636	0.680	-	0.680
ANG	Quantity	21	42	62	-	62
	Total Obligation Authority	0.268	0.636	1.427	-	1.427
AR	Quantity	6	17	23	-	23
	Total Obligation Authority	0.071	0.255	0.560	-	0.560
Total: Secondary Distribution	**Quantity**	**41**	**101**	**140**	**-**	**140**
	Total Obligation Authority	**0.735**	**1.527**	**2.667**	**-**	**2.667**

Exhibit P-5, Cost Analysis: PB 2019 Army		Date: February 2018
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) :	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Procurement Quantity *(Units in Each)*	5	4	5	4	-	4
Gross/Weapon System Cost *($ in Millions)*	1.955	1.946	1.615	1.278	-	1.278
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	1.955	1.946	1.615	1.278	-	1.278
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**1.955**	**1.946**	**1.615**	**1.278**	**-**	**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)*	391.000	486.500	323.000	319.500	-	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 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 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(†)	391.000	5	1.955	486.500	4	1.946	290.000	5	1.450	319.500	4	1.278	-	-	-	319.500	4	1.278
Subtotal: Recurring Cost	-	-	*1.955*	-	-	*1.946*	-	-	*1.450*	-	-	*1.278*	-	-	-	-	-	*1.278*
Subtotal: Hardware Cost	**-**	**-**	***1.955***	**-**	**-**	***1.946***	**-**	**-**	***1.450***	**-**	**-**	***1.278***	**-**	**-**	**-**	**-**	**-**	***1.278***
Support - Fielding Cost																		
Fielding	-	-	-	-	-	-	-	-	0.030	-	-	-	-	-	-	-	-	-
Subtotal: Support - Fielding Cost	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***0.030***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Support - Program Management Cost																		
Government Management	-	-	-	-	-	-	-	-	0.105	-	-	-	-	-	-	-	-	-
Subtotal: Support - Program Management Cost	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***0.105***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Support - Quality Assurance Cost																		
Quality Assurance	-	-	-	-	-	-	-	-	0.030	-	-	-	-	-	-	-	-	-
Subtotal: Support - Quality Assurance Cost	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***0.030***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Gross/Weapon System Cost	**391.000**	**5**	**1.955**	**486.500**	**4**	**1.946**	**323.000**	**5**	**1.615**	**319.500**	**4**	**1.278**	**-**	**-**	**-**	**319.500**	**4**	**1.278**

Exhibit P-5, Cost Analysis: PB 2019 Army		Date: February 2018
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) :	MDAP/MAIS Code:	

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Army	Quantity	2	5	4	-	4
	Total Obligation Authority	0.973	1.615	1.278	-	1.278
ANG	Quantity	2	-	-	-	-
	Total Obligation Authority	0.973	-	-	-	-
Total: Secondary Distribution	**Quantity**	**4**	**5**	**4**	**-**	**4**
	Total Obligation Authority	**1.946**	**1.615**	**1.278**	**-**	**1.278**

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2019 Army		Date: February 2018
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	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
Rigid Inflatable Boat		2016	DEPARTMENT OF THE NAVY / VIRGINIA BEACH, VA	C / FFP	VIRGINIA BEACH, VA	May 2017	Dec 2017	5	285.600			
Rigid Inflatable Boat		2017	DEPARTMENT OF THE NAVY / VIRGINIA BEACH, VA	C / FFP	VIRGINIA BEACH, VA	Aug 2017	Jun 2018	4	486.500			
Rigid Inflatable Boat		2018	DEPARTMENT OF THE NAVY / VIRGINIA BEACH, VA	C / FFP	VIRGINIA BEACH, VA	Feb 2018	Aug 2018	5	290.000			
Rigid Inflatable Boat		2019	DEPARTMENT OF THE NAVY / VIRGINIA BEACH, VA	C / FFP	VIRGINIA BEACH, VA	Jan 2019	Aug 2019	4	319.500			

Exhibit P-5, Cost Analysis: PB 2019 Army		Date: February 2018
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) :	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Procurement Quantity *(Units in Each)*	51	12	37	77	-	77
Gross/Weapon System Cost *($ in Millions)*	0.431	0.518	0.632	1.059	-	1.059
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	0.431	0.518	0.632	1.059	-	1.059
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**0.431**	**0.518**	**0.632**	**1.059**	**-**	**1.059**
(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)*	8.451	43.167	17.081	13.753	-	13.753

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

Cost Elements	Prior Years			FY 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 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(†)	-	-	0.431	43.167	12	0.518	14.000	37	0.518	15.373	51	0.784	-	-	-	15.373	51	0.784
Subtotal: Recurring Cost	-	-	*0.431*	-	-	*0.518*	-	-	*0.518*	-	-	*0.784*	-	-	-	-	-	*0.784*
Subtotal: Hardware Cost	**-**	**-**	***0.431***	**-**	**-**	***0.518***	**-**	**-**	***0.518***	**-**	**-**	***0.784***	**-**	**-**	**-**	**-**	**-**	***0.784***
Support - Fielding Cost																		
Fielding	-	-	-	-	-	-	-	-	0.025	-	-	-	-	-	-	-	-	-
Subtotal: Support - Fielding Cost	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***0.025***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Support - Production Engineering Cost																		
Production Engineering	-	-	-	-	-	-	-	-	0.026	-	-	-	-	-	-	-	-	-
Subtotal: Support - Production Engineering Cost	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***0.026***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Support - Program Management Cost																		
Government Management	-	-	-	-	-	-	-	-	0.038	-	-	0.275	-	-	-	-	-	0.275
Subtotal: Support - Program Management Cost	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***0.038***	**-**	**-**	***0.275***	**-**	**-**	**-**	**-**	**-**	***0.275***
Support - Quality Assurance Cost																		
Quality Assurance	-	-	-	-	-	-	-	-	0.025	-	-	-	-	-	-	-	-	-
Subtotal: Support - Quality Assurance Cost	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***0.025***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Gross/Weapon System Cost	**8.451**	**51**	**0.431**	**43.167**	**12**	**0.518**	**17.081**	**37**	**0.632**	**13.753**	**77**	**1.059**	**-**	**-**	**-**	**13.753**	**77**	**1.059**

Exhibit P-5, Cost Analysis: PB 2019 Army		Date: February 2018
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) :	MDAP/MAIS Code:	

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Army	Quantity	9	26	55	-	55
	Total Obligation Authority	0.410	0.445	0.703	-	0.703
ANG	Quantity	3	11	22	-	22
	Total Obligation Authority	0.108	0.187	0.356	-	0.356
Total: Secondary Distribution	**Quantity**	**12**	**37**	**77**	**-**	**77**
	Total Obligation Authority	**0.518**	**0.632**	**1.059**	**-**	**1.059**

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2019 Army		Date: February 2018
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	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
7-person I-CRC		2016	DEPARTMENT OF THE NAVY / VIRGINIA BEACH, VA	C / FFP	VIRGINIA BEACH, VA	Mar 2017	Mar 2017	0	6.590			
7-person I-CRC		2017	DEPARTMENT OF THE NAVY / VIRGINIA BEACH, VA	C / FFP	VIRGINIA BEACH, VA	Apr 2017	May 2017	12	43.170			
7-person I-CRC		2018	DEPARTMENT OF THE NAVY / VIRGINIA BEACH, VA	C / FFP	VIRGINIA BEACH, VA	Jan 2018	Feb 2018	37	14.000			
7-person I-CRC		2019	DEPARTMENT OF THE NAVY / VIRGINIA BEACH, VA	C / FFP	VIRGINIA BEACH, VA	Jan 2019	Feb 2019	51	15.370			

Exhibit P-5, Cost Analysis: PB 2019 Army		Date: February 2018
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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Procurement Quantity *(Units in Each)*	101	12	24	51	-	51
Gross/Weapon System Cost *($ in Millions)*	1.376	0.368	0.528	0.802	-	0.802
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	1.376	0.368	0.528	0.802	-	0.802
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**1.376**	**0.368**	**0.528**	**0.802**	**-**	**0.802**
(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)*	13.624	30.667	22.000	15.725	-	15.725

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

Cost Elements	Prior Years			FY 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 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(†)	12.000	101	1.212	18.667	12	0.224	18.917	24	0.454	23.588	34	0.802	-	-	-	23.588	34	0.802
Subtotal: Recurring Cost	-	-	*1.212*	-	-	*0.224*	-	-	*0.454*	-	-	*0.802*	-	-	-	-	-	*0.802*
Subtotal: Hardware Cost	**-**	**-**	***1.212***	**-**	**-**	***0.224***	**-**	**-**	***0.454***	**-**	**-**	***0.802***	**-**	**-**	**-**	**-**	**-**	***0.802***
Support - Fielding Cost																		
Fielding	-	-	-	-	-	0.020	-	-	0.014	-	-	-	-	-	-	-	-	-
Subtotal: Support - Fielding Cost	**-**	**-**	**-**	**-**	**-**	***0.020***	**-**	**-**	***0.014***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Support - Production Engineering Cost																		
Production Engineering	-	-	-	-	-	0.020	-	-	0.014	-	-	-	-	-	-	-	-	-
Subtotal: Support - Production Engineering Cost	**-**	**-**	**-**	**-**	**-**	***0.020***	**-**	**-**	***0.014***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Support - Program Management Cost																		
Government Management	-	-	0.164	-	-	0.084	-	-	0.032	-	-	-	-	-	-	-	-	-
Subtotal: Support - Program Management Cost	**-**	**-**	***0.164***	**-**	**-**	***0.084***	**-**	**-**	***0.032***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Support - Quality Assurance Cost																		
Quality Assurance	-	-	-	-	-	0.020	-	-	0.014	-	-	-	-	-	-	-	-	-
Subtotal: Support - Quality Assurance Cost	**-**	**-**	**-**	**-**	**-**	***0.020***	**-**	**-**	***0.014***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Gross/Weapon System Cost	**13.624**	**101**	**1.376**	**30.667**	**12**	**0.368**	**22.000**	**24**	**0.528**	**15.725**	**51**	**0.802**	**-**	**-**	**-**	**15.725**	**51**	**0.802**

Exhibit P-5, Cost Analysis: PB 2019 Army		Date: February 2018
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:	

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
ANG	Quantity	9	16	35	-	35
	Total Obligation Authority	0.275	0.358	0.486	-	0.486
AR	Quantity	3	8	16	-	16
	Total Obligation Authority	0.093	0.170	0.316	-	0.316
Total: Secondary Distribution	**Quantity**	**12**	**24**	**51**	**-**	**51**
	Total Obligation Authority	**0.368**	**0.528**	**0.802**	**-**	**0.802**

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2019 Army		Date: February 2018
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	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
15-person I-CAC		2016	DEPARTMENT OF THE NAVY / VIRGINIA BEACH, VA	C / FFP	VIRGINIA BEACH, VA	Mar 2017	Mar 2017	101	10.250			
15-person I-CAC		2017	DEPARTMENT OF THE NAVY / VIRGINIA BEACH, VA	C / FFP	VIRGINIA BEACH, VA	Apr 2017	May 2017	12	18.670			
15-person I-CAC		2018	DEPARTMENT OF THE NAVY / VIRGINIA BEACH, VA	C / FFP	VIRGINIA BEACH, VA	Jan 2018	Feb 2018	24	18.920			
15-person I-CAC		2019	DEPARTMENT OF THE NAVY / VIRGINIA BEACH, VA	C / FFP	VIRGINIA BEACH, VA	Jan 2019	Feb 2020	34	23.590			

Exhibit P-40, Budget Line Item Justification: PB 2019 Army	Date: February 2018
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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	464	444	1,411	34	1,445	2,443	2,102	2,501	2,447	-	11,846
Gross/Weapon System Cost *($ in Millions)*	109.142	18.601	7.675	9.852	0.270	10.122	16.775	22.016	27.490	29.499	-	241.320
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	109.142	18.601	7.675	9.852	0.270	10.122	16.775	22.016	27.490	29.499	-	241.320
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**109.142**	**18.601**	**7.675**	**9.852**	**0.270**	**10.122**	**16.775**	**22.016**	**27.490**	**29.499**	**-**	**241.320**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost *($ in Thousands)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Thousands)*	-	40.088	17.286	6.982	7.941	7.005	6.867	10.474	10.992	12.055	-	20.371

Description:

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. The IECUs will provide improved cooling, heating, and dehumidification to soldiers and materiel systems in combat, combat support and combat service support units. 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. They are form, fit and function replacements to the current MIL-STD 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) = 2,432
9,000 (single phase / 60 hertz) BTUH AAO = 1,130
18,000 (3 phase / 60 hertz / 208V) BTUH AAO = 2,231
18,000 (single phase / 60 hertz / 230V) BTUH AAO= 842
36,000 (3 phase / 60 hertz) BTUH AAO= 1,318

All OCO funding is Active Component.

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023
Army	Quantity	210	250	597	34	631	1,443	928	1,119	1,094

Exhibit P-40, Budget Line Item Justification: PB 2019 Army		Date: February 2018
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		

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023
	Total Obligation Authority	9.691	4.729	2.852	0.270	3.122	10.775	9.016	14.490	14.499
ANG	Quantity	161	140	544	-	544	674	816	991	978
	Total Obligation Authority	6.382	2.911	4.000	-	4.000	4.000	8.000	8.000	9.000
AR	Quantity	93	54	270	-	270	326	358	391	375
	Total Obligation Authority	2.528	0.035	3.000	-	3.000	2.000	5.000	5.000	6.000
Total: Secondary Distribution	**Quantity**	**464**	**444**	**1,411**	**34**	**1,445**	**2,443**	**2,102**	**2,501**	**2,447**
	Total Obligation Authority	**18.601**	**7.675**	**9.852**	**0.270**	**10.122**	**16.775**	**22.016**	**27.490**	**29.499**

Exhibit P-40, Budget Line Item Justification: PB 2019 Army	Date: February 2018
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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 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			- / 109.142	464 / 18.601	444 / 7.675	1,411 / 9.852	34 / 0.270	1,445 / 10.122
P-40	**Total Gross/Weapon System Cost**				**- / 109.142**	**464 / 18.601**	**444 / 7.675**	**1,411 / 9.852**	**34 / 0.270**	**1,445 / 10.122**

*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 2019 Base procurement dollars in the amount of $9.852 million supports the family of Improved Environmental Control Units 9,000 BTU/hr (British Thermal Units), 18,000 BTU/hr and 36,000 BTU/hr IECUs that are required as a component or separately authorized in support of fielded tactical weapon systems. 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 and 36,000 BTU/hr IECUs provide an EPA compliant capability to the force structure before commercial/military stocks of previously used refrigerant are exhausted and no longer available.

FY 2019 OCO procurement dollars in the amount of $0.270 million supports the European Deterrence Initiative effort.

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.

Exhibit P-5, Cost Analysis: PB 2019 Army		Date: February 2018
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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Procurement Quantity *(Units in Each)*	-	464	444	1,411	34	1,445
Gross/Weapon System Cost *($ in Millions)*	109.142	18.601	7.675	9.852	0.270	10.122
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	109.142	18.601	7.675	9.852	0.270	10.122
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**109.142**	**18.601**	**7.675**	**9.852**	**0.270**	**10.122**
(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)*	-	40.088	17.286	6.982	7.941	7.005

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

Cost Elements	Prior Years			FY 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 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	-	-	19.184	-	-	2.600	-	-	0.250	-	-	1.000	-	-	-	-	-	1.000
2. Engineering Change Orders	-	-	2.331	-	-	2.900	-	-	0.080	-	-	0.050	-	-	-	-	-	0.050
3. Testing	-	-	2.400	-	-	1.800	-	-	0.100	-	-	-	-	-	-	-	-	-
4. System Fielding Support	-	-	1.576	-	-	-	-	-	0.253	-	-	0.700	-	-	-	-	-	0.700
5. System Assessment	-	-	0.155	-	-	0.950	-	-	-	-	-	-	-	-	-	-	-	-
6. Logistic Support	-	-	27.034	-	-	1.800	-	-	0.200	-	-	0.950	-	-	-	-	-	0.950
7. Data	-	-	1.695	-	-	2.800	-	-	0.100	-	-	-	-	-	-	-	-	-
8. Program Management Support	-	-	20.798	-	-	1.685	-	-	0.300	-	-	0.957	-	-	0.006	-	-	0.963
9,000 BTU/H ECU(†)	8.911	157	1.399	7.267	120	0.872	8.935	169	1.510	6.461	165	1.066	6.500	10	0.065	6.463	175	1.131
18,000 BTU/ H ECU (208V 3PH/50/60Hz)(†)	9.645	76	0.733	8.571	170	1.457	14.201	139	1.974	8.187	390	3.193	8.200	10	0.082	8.188	400	3.275
18,000 BTU/ H ECU (230V 1PH/50/60Hz)(†)	9.382	76	0.713	8.500	54	0.459	14.107	75	1.058	7.765	115	0.893	7.800	10	0.078	7.768	125	0.971
36,000 BTU/H ECU(†)	12.645	76	0.961	10.650	120	1.278	18.500	100	1.850	9.840	106	1.043	9.750	4	0.039	9.836	110	1.082

Exhibit P-5, Cost Analysis: PB 2019 Army		Date: February 2018
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 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 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	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Recurring Cost	-	-	*109.142*	-	-	*18.601*	-	-	*7.675*	-	-	*9.852*	-	-	*0.270*	-	-	*10.122*
Subtotal: Flyaway Cost	**-**	**-**	***109.142***	**-**	**-**	***18.601***	**-**	**-**	***7.675***	**-**	**-**	***9.852***	**-**	**-**	***0.270***	**-**	**-**	***10.122***
Gross/Weapon System Cost	**-**	**-**	**109.142**	**40.088**	**464**	**18.601**	**17.286**	**444**	**7.675**	**6.982**	**1,411**	**9.852**	**7.941**	**34**	**0.270**	**7.005**	**1,445**	**10.122**

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Army	Quantity	210	250	597	34	631
	Total Obligation Authority	9.691	4.729	2.852	0.270	3.122
ANG	Quantity	161	140	544	-	544
	Total Obligation Authority	6.382	2.911	4.000	-	4.000
AR	Quantity	93	54	270	-	270
	Total Obligation Authority	2.528	0.035	3.000	-	3.000
Total: Secondary Distribution	**Quantity**	**464**	**444**	**1,411**	**34**	**1,445**
	Total Obligation Authority	**18.601**	**7.675**	**9.852**	**0.270**	**10.122**

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2019 Army		Date: February 2018
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	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
9,000 BTU/H ECU		2017	TFAB Defense / Madison, AL	C / FFP	ACC-APG Natick, MA	Sep 2017	Jun 2018	120	7.270	Y	Dec 2016	Mar 2017
9,000 BTU/H ECU		2018	TFAB Defense / Madison, AL	C / FFP	ACC-APG Natick, MA	Aug 2018	Nov 2018	169	8.940	Y	Dec 2016	Mar 2017
9,000 BTU/H ECU		2019	TFAB Defense / Madison, AL	C / FFP	ACC-APG Natick, MA	Feb 2019	Oct 2019	175	6.460	Y	Dec 2016	Mar 2017
18,000 BTU/H ECU (208V 3PH/50/60Hz)		2017	TFAB Defense / Madison, AL	C / FFP	ACC-APG Natick, MA	Sep 2017	Jun 2018	170	8.570	Y	Dec 2016	Mar 2017
18,000 BTU/H ECU (208V 3PH/50/60Hz)		2018	TFAB Defense / Madison, AL	C / FFP	ACC-APG Natick, MA	Aug 2018	Nov 2018	139	14.200	Y	Dec 2016	Mar 2017
18,000 BTU/H ECU (208V 3PH/50/60Hz)		2019	TFAB Defense / Madison, AL	C / FFP	ACC-APG Natick, MA	Feb 2019	Oct 2019	400	8.190	Y	Dec 2016	Mar 2017
18,000 BTU/H ECU (230V 1PH/50/60Hz)		2017	TFAB Defense / Madison, AL	C / FFP	ACC-APG Natick, MA	Sep 2017	Jun 2018	54	8.500	Y	Dec 2016	Mar 2017
18,000 BTU/H ECU (230V 1PH/50/60Hz)		2018	TFAB Defense / Madison, AL	C / FFP	ACC-APG Natick, MA	Aug 2018	Nov 2018	75	14.110	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	Feb 2019	Oct 2019	125	7.770	Y	Feb 2019	Mar 2017
36,000 BTU/H ECU		2017	TFAB Defense / Madison, AL	C / FFP	ACC-APG Natick, MA	Sep 2017	Jun 2018	120	10.650	Y	Dec 2016	Mar 2017
36,000 BTU/H ECU		2018	TFAB Defense / Madison, AL	C / FFP	ACC-APG Natick, MA	Aug 2018	Nov 2018	100	18.500	Y	Dec 2016	Mar 2017
36,000 BTU/H ECU		2019	TFAB Defense / Madison, AL	C / FFP	ACC-APG Natick, MA	Feb 2019	Oct 2019	110	9.840	Y	Dec 2016	Mar 2017

Remarks:
On 29 Sep 2017, new production contract awarded to procure LRIP quantities in FY17 and FY18 and FRP quantities starting in FY19. Contract work expected to resume after GAO protests are resolved (Target 30 Jan 2018). Delay due to protests will push production of LRIP and FRP quantities back approximately 4 months from original schedule.

Exhibit P-40, Budget Line Item Justification: PB 2019 Army	Date: February 2018
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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	259.233	2.112	1.095	1.103	-	1.103	1.125	1.147	1.161	1.184	-	268.160
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	259.233	2.112	1.095	1.103	-	1.103	1.125	1.147	1.161	1.184	-	268.160
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**259.233**	**2.112**	**1.095**	**1.103**	**-**	**1.103**	**1.125**	**1.147**	**1.161**	**1.184**	**-**	**268.160**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost *($ in Thousands)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Thousands)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The Soldier Enhancement Program (SEP) was established by the National Defense Authorization Act for Fiscal Year 1990 and 1991. The SEP evaluates available Commercial Off the Shelf (COTS), Government Off the Shelf (GOTS) and Non-Developmental Item (NDI) equipment to determine if items have the potential to provide increased combat effectiveness to the Soldier. The SEP funding provides a means of procuring individual equipment designed to increase the Soldiers' operational effectiveness for evaluation.

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023
Army	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	2.112	1.095	1.103	-	1.103	1.125	1.147	1.161	1.184
Total: Secondary Distribution	**Quantity**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
	Total Obligation Authority	**2.112**	**1.095**	**1.103**	**-**	**1.103**	**1.125**	**1.147**	**1.161**	**1.184**

Justification:

FY2019 Base procurement dollars in the amount of $1.103 million support the procurement of approved COTS, GOTS, and NDI hardware such as optics and accessories, night vision devices, and individual Soldier equipment for the purpose of evaluation by soldiers.

"In accordance with Section 1815 of the FY 2008 National Defense Authorization Act (P.L. 110-181), this item is necessary for the 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."

Exhibit P-40, Budget Line Item Justification: PB 2019 Army	Date: February 2018
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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	5,750	9,237	2,000	4,554	5,000	9,554	3,170	3,440	3,236	1,037	-	37,424
Gross/Weapon System Cost *($ in Millions)*	76.537	10.856	5.390	5.875	4.300	10.175	4.764	5.183	5.132	3.038	-	121.075
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	76.537	10.856	5.390	5.875	4.300	10.175	4.764	5.183	5.132	3.038	-	121.075
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**76.537**	**10.856**	**5.390**	**5.875**	**4.300**	**10.175**	**4.764**	**5.183**	**5.132**	**3.038**	**-**	**121.075**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost *($ in Thousands)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Thousands)*	13.311	1.175	2.695	1.290	0.860	1.065	1.503	1.507	1.586	2.930	-	3.235

Description:

The Personnel Recovery Support System (PRSS) consists of items including Secure Personal Locator Beacons and Personnel Recovery equipment items to report and locate isolated, missing, detained and captured Soldiers.

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023
Army	Quantity	9,237	2,000	4,554	5,000	9,554	3,170	3,440	3,236	1,037
	Total Obligation Authority	10.856	5.390	5.875	4.300	10.175	4.764	5.183	5.132	3.038
Total: Secondary Distribution	**Quantity**	**9,237**	**2,000**	**4,554**	**5,000**	**9,554**	**3,170**	**3,440**	**3,236**	**1,037**
	Total Obligation Authority	**10.856**	**5.390**	**5.875**	**4.300**	**10.175**	**4.764**	**5.183**	**5.132**	**3.038**

Exhibit P-40, Budget Line Item Justification: PB 2019 Army	Date: February 2018
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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 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			5,750 / 76.537	9,237 / 10.856	2,000 / 5.390	4,554 / 5.875	5,000 / 4.300	9,554 / 10.175
P-40	**Total Gross/Weapon System Cost**				**5,750 / 76.537**	**9,237 / 10.856**	**2,000 / 5.390**	**4,554 / 5.875**	**5,000 / 4.300**	**9,554 / 10.175**

*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 19 Base procurement dollars in the amount of $5.948 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 19 OCO procurement dollars in the amount of $4.300 million funds the purchase of Secure Personal Locator Beacons and associated support services for use in overseas contingency operations by the active and reserve components of the Armed Forces.

All funding assigned to the Active Component.

The AAO is 62,909.

Exhibit P-5, Cost Analysis: PB 2019 Army		Date: February 2018
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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Procurement Quantity *(Units in Each)*	5,750	9,237	2,000	4,554	5,000	9,554
Gross/Weapon System Cost *($ in Millions)*	76.537	10.856	5.390	5.875	4.300	10.175
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	76.537	10.856	5.390	5.875	4.300	10.175
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**76.537**	**10.856**	**5.390**	**5.875**	**4.300**	**10.175**
(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)*	13.311	1.175	2.695	1.290	0.860	1.065

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

Cost Elements	Prior Years			FY 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 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(†)	1.028	42,690	43.879	1.006	4,000	4.022	0.914	2,000	1.827	0.906	4,554	4.127	-	-	-	0.906	4,554	4.127
Secure Personal Locator Beacons(†)	-	-	-	0.743	1,907	1.417	-	-	-	-	-	-	0.685	5,000	3.425	0.685	5,000	3.425
Initial Spares & Repair Parts	-	-	2.930	-	-	0.168	-	-	0.172	-	-	-	-	-	0.014	-	-	0.014
Support Equipment	-	-	3.605	-	-	0.100	-	-	0.100	-	-	0.128	-	-	0.098	-	-	0.226
Systems Test and Evaluation	-	-	0.411	-	-	0.136	-	-	0.141	-	-	-	-	-	-	-	-	-
Nonrecurring Engineering	-	-	5.431	-	-	0.554	-	-	0.057	-	-	-	-	-	0.188	-	-	0.188
Systems Integration and Engineering	-	-	4.243	-	-	1.167	-	-	0.633	-	-	-	-	-	0.300	-	-	0.300
Project Management Admin	-	-	3.366	-	-	1.543	-	-	0.465	-	-	0.334	-	-	0.065	-	-	0.399
Fielding	-	-	1.385	-	-	0.365	-	-	0.377	-	-	0.255	-	-	0.210	-	-	0.465
Contract Logistics/ Subject Expert Spt	-	-	11.276	-	-	1.382	-	-	1.617	-	-	1.032	-	-	-	-	-	1.032
Subtotal: Recurring Cost	-	-	*76.532*	-	-	*10.856*	-	-	*5.390*	-	-	*5.875*	-	-	*4.300*	-	-	*10.175*
Subtotal: Flyaway Cost	**-**	**-**	***76.532***	**-**	**-**	***10.856***	**-**	**-**	***5.390***	**-**	**-**	***5.875***	**-**	**-**	***4.300***	**-**	**-**	***10.175***

Exhibit P-5, Cost Analysis: PB 2019 Army		Date: February 2018
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 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 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	**13.311**	**5,750**	**76.537**	**1.175**	**9,237**	**10.856**	**2.695**	**2,000**	**5.390**	**1.290**	**4,554**	**5.875**	**0.860**	**5,000**	**4.300**	**1.065**	**9,554**	**10.175**

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Army	Quantity	9,237	2,000	4,554	5,000	9,554
	Total Obligation Authority	10.856	5.390	5.875	4.300	10.175
Total: Secondary Distribution	**Quantity**	**9,237**	**2,000**	**4,554**	**5,000**	**9,554**
	Total Obligation Authority	**10.856**	**5.390**	**5.875**	**4.300**	**10.175**

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2019 Army		Date: February 2018
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	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
Personnel Recovery Equipment Items		2017	Various Contractors / Various Locations	Option / FP	Aberdeen, MD	Feb 2017	Sep 2017	4,000	1.010	Y		
Personnel Recovery Equipment Items		2018	Various Contractors / Various Locations	C / FP	Aberdeen, MD	Mar 2018	Jul 2018	2,000	0.910	Y		
Personnel Recovery Equipment Items		2019	Various Contractors / Various Locations	Option / FP	Aberdeen, MD	Feb 2019	May 2019	4,554	0.910	Y		
Secure Personal Locator Beacons		2017	TBD / TBD	C / FP	Aberdeen, MD	Jan 2018	Jun 2018	1,907	0.740	Y		
Secure Personal Locator Beacons	✓	2019	TBD / TBD	Option / FP	Abberdeen, MD	Nov 2018	Jun 2019	5,000	0.690	Y		

Remarks:
The quantity buy for Secure Personal Locator Beacons has been adjusted downward as a result of $3.55M FY18 funding that was re-phased into FY19 ($2.13M) and into FY20 ($1.42).

Exhibit P-40, Budget Line Item Justification: PB 2019 Army	Date: February 2018
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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	7,340	1,493	1,666	5,847	50	5,897	1,099	1,349	2,906	2,736	-	24,486
Gross/Weapon System Cost *($ in Millions)*	336.169	32.419	38.219	92.487	1.725	94.212	36.976	35.708	60.447	63.488	-	697.638
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	336.169	32.419	38.219	92.487	1.725	94.212	36.976	35.708	60.447	63.488	-	697.638
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**336.169**	**32.419**	**38.219**	**92.487**	**1.725**	**94.212**	**36.976**	**35.708**	**60.447**	**63.488**	**-**	**697.638**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost *($ in Thousands)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Thousands)*	45.800	21.714	22.941	15.818	34.500	15.976	33.645	26.470	20.801	23.205	-	28.491

Description:

The Nett Warrior (NW) (named in honor of Medal of Honor recipient Colonel Robert C. Nett and also known as Ground Soldier System) leverages commercial smart phone devices and secure Army tactical radios to provide the dismounted leader an integrated mission command and situational awareness system for use 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. This information effectively puts the power of the entire Army tactical network in the hands of the dismounted leader. The NW system also provides the same integrated mission command capability tied to Joint Battle Command Platform (JBC-P) to tactical vehicle mounted leaders so that upon dismount, they still have access to the common operating picture (COP) and full situational awareness. This capability provides the dismounted leader faster, more accurate decisions and reduced fratricide in the tactical fight. NW also procures supporting power systems aimed at significantly reducing power requirements in the expeditionary environment. The NW also provides the dismounted common computational platform for the Mobile Handheld Computing Environment. Includes integration and interface of products on Soldiers.

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023
Army	Quantity	1,493	1,254	3,951	50	4,001	797	952	2,906	2,736
	Total Obligation Authority	32.419	29.169	62.487	1.725	64.212	26.976	25.708	60.447	63.488
ANG	Quantity	-	412	1,896	-	1,896	302	397	-	-
	Total Obligation Authority	-	9.050	30.000	-	30.000	10.000	10.000	-	-
Total: Secondary Distribution	**Quantity**	**1,493**	**1,666**	**5,847**	**50**	**5,897**	**1,099**	**1,349**	**2,906**	**2,736**
	Total Obligation Authority	**32.419**	**38.219**	**92.487**	**1.725**	**94.212**	**36.976**	**35.708**	**60.447**	**63.488**

Exhibit P-40, Budget Line Item Justification: PB 2019 Army	Date: February 2018
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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 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	R80501 / Ground Soldier System	P-5a			7,340 / 336.169	1,493 / 32.419	1,666 / 38.219	5,847 / 92.487	50 / 1.725	5,897 / 94.212
P-40	**Total Gross/Weapon System Cost**				**7,340 / 336.169**	**1,493 / 32.419**	**1,666 / 38.219**	**5,847 / 92.487**	**50 / 1.725**	**5,897 / 94.212**

*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:

FY19 Base procurement dollars in the amount of $92.487 million procures NW Soldier worn hardware, NW support equipment, NW system fielding, sustainment of New Equipment Training (NET) and support services for fielding to Army Brigade Combat Teams in Capability Set fielding and Army Special Forces. 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 unparalleled situational awareness and mission command to dismounted combat leaders through an integrated smart device and supporting equipment such as battery chargers and power managers and 2) enables commanders to combine the 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 Network and the acquisition program is aligned with Army Capability Sets providing a balanced investment strategy. 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), request consolidating the purchase of NW commercial-based items requirements across multiple years in order to execute a buyout of up to three years beyond FY18 as needed.

FY 2019 Overseas Contingency Operations funding in the amount of $1.725 million funds hardware and co-located field service support for deployed units.

"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."

Exhibit P-5, Cost Analysis: PB 2019 Army		Date: February 2018
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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Procurement Quantity *(Units in Each)*	7,340	1,493	1,666	5,847	50	5,897
Gross/Weapon System Cost *($ in Millions)*	336.169	32.419	38.219	92.487	1.725	94.212
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	336.169	32.419	38.219	92.487	1.725	94.212
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**336.169**	**32.419**	**38.219**	**92.487**	**1.725**	**94.212**
(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)*	45.800	21.714	22.941	15.818	34.500	15.976

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

Cost Elements	Prior Years			FY 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 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(†)	3.607	23,691	85.448	2.074	1,493	3.097	2.127	1,254	2.667	2.805	5,847	16.401	1.120	50	0.056	2.791	5,897	16.457
NW Support Equipment (COMPO 1)	-	-	133.782	-	-	9.539	-	-	9.847	-	-	17.869	-	-	-	-	-	17.869
NW Sys Fielding, Sustain & Sup (COMPO 1)	-	-	96.054	-	-	19.784	-	-	16.655	-	-	33.541	-	-	1.669	-	-	35.210
Dismounted C2/SA Dir Req (COMPO 1)	-	-	20.885	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
NW Equipment (COMPO 2)	-	-	-	-	-	-	2.126	412	0.876	-	-	-	-	-	-	-	-	-
NW Support Equipment (COMPO 2)	-	-	-	-	-	-	-	-	3.235	-	-	15.310	-	-	-	-	-	15.310
NW Sys Fielding, Sustain & Sup (COMPO 2)	-	-	-	-	-	-	-	-	4.939	-	-	9.366	-	-	-	-	-	9.366
Subtotal: Recurring Cost	-	-	*336.174*	-	-	*32.419*	-	-	*38.219*	-	-	*92.487*	-	-	*1.725*	-	-	*94.212*
Subtotal: Hardware Cost	**-**	**-**	***336.174***	**-**	**-**	***32.419***	**-**	**-**	***38.219***	**-**	**-**	***92.487***	**-**	**-**	***1.725***	**-**	**-**	***94.212***
Gross/Weapon System Cost	**45.800**	**7,340**	**336.169**	**21.714**	**1,493**	**32.419**	**22.941**	**1,666**	**38.219**	**15.818**	**5,847**	**92.487**	**34.500**	**50**	**1.725**	**15.976**	**5,897**	**94.212**

Exhibit P-5, Cost Analysis: PB 2019 Army		Date: February 2018
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:	

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Army	Quantity	1,493	1,254	3,951	50	4,001
	Total Obligation Authority	32.419	29.169	62.487	1.725	64.212
ANG	Quantity	-	412	1,896	-	1,896
	Total Obligation Authority	-	9.050	30.000	-	30.000
Total: Secondary Distribution	**Quantity**	**1,493**	**1,666**	**5,847**	**50**	**5,897**
	Total Obligation Authority	**32.419**	**38.219**	**92.487**	**1.725**	**94.212**

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2019 Army		Date: February 2018
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	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
NW Soldier Worn Hardware		2017	Various / Various	C / FFP	APG, MD	May 2017	Aug 2017	1,493	2.074			
NW Soldier Worn Hardware		2018	TBD / APG, MD	C / FFP	APG, MD	Mar 2018	Jun 2018	1,254	2.130			
NW Soldier Worn Hardware		2019	TBD / APG, MD	C / FFP	APG-MD	Mar 2019	Aug 2019	5,897	2.790			

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.

FY18 quantity does not include COMPO 2 quantity of 412.

Exhibit P-40, Budget Line Item Justification: PB 2019 Army	Date: February 2018
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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	20,367	13,049	691	17,093	-	17,093	14,463	17,637	14,817	11,143	-	109,260
Gross/Weapon System Cost *($ in Millions)*	25.306	22.014	10.456	30.774	-	30.774	31.688	37.274	38.908	33.320	-	229.740
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	25.306	22.014	10.456	30.774	-	30.774	31.688	37.274	38.908	33.320	-	229.740
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**25.306**	**22.014**	**10.456**	**30.774**	**-**	**30.774**	**31.688**	**37.274**	**38.908**	**33.320**	**-**	**229.740**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost *($ in Thousands)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Thousands)*	1.243	1.687	15.132	1.800	-	1.800	2.191	2.113	2.626	2.990	-	2.103

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.

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023
Army	Quantity	13,049	691	11,592	-	11,592	7,320	8,942	7,084	5,323
	Total Obligation Authority	22.014	10.456	23.507	-	23.507	22.280	21.250	18.804	16.223
ANG	Quantity	-	-	5,501	-	5,501	7,143	8,695	7,733	5,820
	Total Obligation Authority	-	-	7.267	-	7.267	9.408	16.024	20.104	17.097
Total: Secondary Distribution	**Quantity**	**13,049**	**691**	**17,093**	**-**	**17,093**	**14,463**	**17,637**	**14,817**	**11,143**
	Total Obligation Authority	**22.014**	**10.456**	**30.774**	**-**	**30.774**	**31.688**	**37.274**	**38.908**	**33.320**

Exhibit P-40, Budget Line Item Justification: PB 2019 Army	Date: February 2018
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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 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	R08090 / Integrated Soldier Power Data System - Core				- / -	- / -	409 / 7.370	16,895 / 22.318	- / -	16,895 / 22.318
P-5	R09103 / Universal Battery Charger				- / -	- / -	282 / 3.086	198 / 8.456	- / -	198 / 8.456
P-5	R80010 / Small Unit Power Increment 1	P-5a			20,367 / 25.306	13,049 / 22.014	- / -	- / -	- / -	- / -
P-40	**Total Gross/Weapon System Cost**				**20,367 / 25.306**	**13,049 / 22.014**	**691 / 10.456**	**17,093 / 30.774**	**- / -**	**17,093 / 30.774**

*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:
FY19 Base procurement dollars in the amount of $30.774 million procures and fields Integrated Soldier Power Data System - Core and Universal Battery Chargers and associated equipment.

The increased digital capability of electronic devices generates an increased demand for power. Historically, innovations in Soldier power struggle to keep pace with the growing power requirements that accompany these increased capabilities. Additionally, batteries add weight and consumes more space in the combat load. Power management is a significant mission planning consideration for the dismounted squad leader who manages combat loads. Dismounted squads operating in the most austere environments have traditionally carried enough batteries to sustain individual Soldier devices for up to 72 hours before resupply. Small Unit Power seeks to reduce the number of batteries that the Soldier must carry to reduce the combat load. The Soldier and the squad are the centerpiece of the modernization strategy, as the U.S. Army develops strategies to effectively equip and train the Soldier of Force 2025; it must reconcile how to power the growing number of Soldier-worn devices while also reducing the Soldier's battery load and decreasing the logistical demand for battery resupply. Soldier and small unit power systems reduce the number of logistical convoys pushing supplies to the forward edge of the battlefield and associated cost and risk involved with battery and fuel resupply missions.

"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."

Exhibit P-5, Cost Analysis: PB 2019 Army		Date: February 2018
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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Procurement Quantity *(Units in Each)*	-	-	409	16,895	-	16,895
Gross/Weapon System Cost *($ in Millions)*	-	-	7.370	22.318	-	22.318
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	-	-	7.370	22.318	-	22.318
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**-**	**-**	**7.370**	**22.318**	**-**	**22.318**
(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)*	-	-	18.020	1.321	-	1.321

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

Cost Elements	Prior Years			FY 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 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	-	-	-	-	-	-	1.697	2,916	4.948	1.136	16,895	19.190	-	-	-	1.136	16,895	19.190
Sys Eng/Program Management	-	-	-	-	-	-	-	-	2.223	-	-	1.963	-	-	-	-	-	1.963
System Fielding and Support	-	-	-	-	-	-	-	-	0.199	-	-	1.162	-	-	-	-	-	1.162
Subtotal: Non Recurring Cost	-	-	-	-	-	-	-	-	*7.370*	-	-	*22.318*	-	-	-	-	-	*22.318*
Subtotal: Flyaway Cost	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***7.370***	**-**	**-**	***22.318***	**-**	**-**	**-**	**-**	**-**	***22.318***
Gross/Weapon System Cost	**-**	**-**	**-**	**-**	**-**	**-**	**18.020**	**409**	**7.370**	**1.321**	**16,895**	**22.318**	**-**	**-**	**-**	**1.321**	**16,895**	**22.318**

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Army	Quantity	-	409	11,394	-	11,394
	Total Obligation Authority	-	7.370	15.051	-	15.051
ANG	Quantity	-	-	5,501	-	5,501
	Total Obligation Authority	-	-	7.267	-	7.267
Total: Secondary Distribution	**Quantity**	**-**	**409**	**16,895**	**-**	**16,895**
	Total Obligation Authority	**-**	**7.370**	**22.318**	**-**	**22.318**

Exhibit P-5, Cost Analysis: PB 2019 Army		Date: February 2018
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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Procurement Quantity *(Units in Each)*	-	-	282	198	-	198
Gross/Weapon System Cost *($ in Millions)*	-	-	3.086	8.456	-	8.456
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	-	-	3.086	8.456	-	8.456
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**-**	**-**	**3.086**	**8.456**	**-**	**8.456**
(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)*	-	-	10.943	42.707	-	42.707

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

Cost Elements	Prior Years			FY 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 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	-	-	-	-	-	-	9.090	234	2.127	5.091	198	1.008	-	-	-	5.091	198	1.008
UBC Fielding and Support	-	-	-	-	-	-	-	-	0.144	-	-	1.562	-	-	-	-	-	1.562
Subtotal: Recurring Cost	-	-	-	-	-	-	-	-	*2.271*	-	-	*2.570*	-	-	-	-	-	*2.570*
Non Recurring Cost																		
UBC Vehicle Integration	-	-	-	-	-	-	-	-	0.308	-	-	3.747	-	-	-	-	-	3.747
System Engineering/ Program Management	-	-	-	-	-	-	-	-	0.507	-	-	2.139	-	-	-	-	-	2.139
Subtotal: Non Recurring Cost	-	-	-	-	-	-	-	-	*0.815*	-	-	*5.886*	-	-	-	-	-	*5.886*
Subtotal: Hardware Cost	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***3.086***	**-**	**-**	***8.456***	**-**	**-**	**-**	**-**	**-**	***8.456***
Gross/Weapon System Cost	**-**	**-**	**-**	**-**	**-**	**-**	**10.943**	**282**	**3.086**	**42.707**	**198**	**8.456**	**-**	**-**	**-**	**42.707**	**198**	**8.456**

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Army	Quantity	-	282	198	-	198
	Total Obligation Authority	-	3.086	8.456	-	8.456
Total:	**Quantity**	**-**	**282**	**198**	**-**	**198**

Exhibit P-5, Cost Analysis: PB 2019 Army		Date: February 2018
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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Secondary Distribution	Total Obligation Authority	-	3.086	8.456	-	8.456

Exhibit P-5, Cost Analysis: PB 2019 Army		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 25	**P-1 Line Item Number / Title:** 8827R80800 / Mobile Soldier Power	**Item Number / Title [DODIC]:** R80010 / Small Unit Power Increment 1
ID Code (A=Service Ready, B=Not Service Ready) :	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Procurement Quantity *(Units in Each)*	20,367	13,049	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	25.306	22.014	-	-	-	-
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	25.306	22.014	-	-	-	-
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**25.306**	**22.014**	**-**	**-**	**-**	**-**
(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)*	1.243	1.687	-	-	-	-

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

Cost Elements	Prior Years			FY 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 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																		
Soldier Power Hardware(†)	1.243	20,367	25.306	1.248	13,049	16.288	-	-	-	-	-	-	-	-	-	-	-	-
Sys Eng/Prog Mngmt	-	-	-	-	-	4.672	-	-	-	-	-	-	-	-	-	-	-	-
System Fielding, Sustainment & Support	-	-	-	-	-	1.057	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Recurring Cost	-	-	*25.316*	-	-	*22.014*	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Hardware Cost	**-**	**-**	***25.316***	**-**	**-**	***22.014***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Gross/Weapon System Cost	**1.243**	**20,367**	**25.306**	**1.687**	**13,049**	**22.014**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Army	Quantity	13,049	-	-	-	-
	Total Obligation Authority	22.014	-	-	-	-
Total: Secondary Distribution	**Quantity**	**13,049**	**-**	**-**	**-**	**-**
	Total Obligation Authority	**22.014**	**-**	**-**	**-**	**-**

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2019 Army		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 25	P-1 Line Item Number / Title: 8827R80800 / Mobile Soldier Power	Item Number / Title [DODIC]: R80010 / Small Unit Power Increment 1

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
Soldier Power Hardware		2017	TBD / TBD	Various	Various	Jan 2018	Jul 2018	13,049	1.250			

Exhibit P-40, Budget Line Item Justification: PB 2019 Army	Date: February 2018
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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	1,082.886	53.800	0.000	-	55.800	55.800	-	-	-	-	-	1,192.486
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	1,082.886	53.800	0.000	-	55.800	55.800	-	-	-	-	-	1,192.486
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**1,082.886**	**53.800**	**0.000**	**-**	**55.800**	**55.800**	**-**	**-**	**-**	**-**	**-**	**1,192.486**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost *($ in Thousands)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Thousands)*	67,680.375	4,483.333	-	-	4,650.000	4,650.000	-	-	-	-	-	27,101.955

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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023
Army	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	53.800	0.000	0.000	55.800	55.800	-	-	-	-
Total: Secondary Distribution	**Quantity**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
	Total Obligation Authority	**53.800**	**0.000**	**-**	**55.800**	**55.800**	**-**	**-**	**-**	**-**

Exhibit P-40, Budget Line Item Justification: PB 2019 Army	Date: February 2018
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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 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			- / 1,082.886	- / 53.800	- / 0.000	- / -	- / 55.800	- / 55.800
P-40	**Total Gross/Weapon System Cost**				**- / 1,082.886**	**- / 53.800**	**- / 0.000**	**- / -**	**- / 55.800**	**- / 55.800**

*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 19 OCO procurement dollars in the amount of $55.800 million supports the production of 12 Force Provider 150-Soldier equivalent systems, 6 Power Generation and Distribution Kits, and 3 Expeditionary TRICON Kits to replace battle losses.

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.

Exhibit P-5, Cost Analysis: PB 2019 Army		Date: February 2018
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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	1,082.886	53.800	0.000	-	55.800	55.800
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	1,082.886	53.800	0.000	-	55.800	55.800
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**1,082.886**	**53.800**	**0.000**	**-**	**55.800**	**55.800**
(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)*	67,680.375	4,483.333	-	-	4,650.000	4,650.000

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

Cost Elements	Prior Years			FY 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 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(†)	45,200.625	16	723.210	3,779.000	12	45.348	-	-	-	-	-	-	4,006.000	12	48.072	4,006.000	12	48.072
Hardware Power Generation and Distribution Kit(†)	7,414.524	21	155.705	308.000	6	1.848	-	-	-	-	-	-	326.000	6	1.956	326.000	6	1.956
Hardware Expeditionary TRICON Set(†)	8,578.667	21	180.152	367.000	6	2.202	-	-	-	-	-	-	390.000	3	1.170	390.000	3	1.170
Hardware Spare Parts	-	-	2.376	-	-	0.315	-	-	-	-	-	-	-	-	0.335	-	-	0.335
System Engineering/ Program Management	-	-	6.440	-	-	0.900	-	-	-	-	-	-	-	-	1.050	-	-	1.050
Data	-	-	4.065	-	-	0.160	-	-	-	-	-	-	-	-	0.175	-	-	0.175
Fielding	-	-	5.900	-	-	0.395	-	-	-	-	-	-	-	-	0.267	-	-	0.267
Testing	-	-	0.075	-	-	0.220	-	-	-	-	-	-	-	-	0.150	-	-	0.150
Logistics	-	-	2.887	-	-	0.310	-	-	-	-	-	-	-	-	0.175	-	-	0.175
System Techical Support	-	-	2.076	-	-	2.102	-	-	-	-	-	-	-	-	2.450	-	-	2.450
Subtotal: Recurring Cost	-	-	*1,082.886*	-	-	*53.800*	-	-	-	-	-	*0.000*	-	-	*55.800*	-	-	*55.800*
Subtotal: Flyaway Cost	**-**	**-**	***1,082.886***	**-**	**-**	***53.800***	**-**	**-**	**-**	**-**	**-**	***0.000***	**-**	**-**	***55.800***	**-**	**-**	***55.800***
Gross/Weapon System Cost	**67,680.375**	**-**	**1,082.886**	**4,483.333**	**-**	**53.800**	**-**	**-**	**0.000**	**-**	**-**	**-**	**4,650.000**	**-**	**55.800**	**4,650.000**	**-**	**55.800**

Exhibit P-5, Cost Analysis: PB 2019 Army		Date: February 2018
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:	

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Army	Quantity	-	-	-	-	-
	Total Obligation Authority	53.800	0.000	0.000	55.800	55.800
Total: Secondary Distribution	**Quantity**	**-**	**-**	**-**	**-**	**-**
	Total Obligation Authority	**53.800**	**0.000**	**-**	**55.800**	**55.800**

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2019 Army		Date: February 2018
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	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 Force Provider Module(†)		2017	Letterkenny Army Depot - 1 / Chambersburg, PA	SS / FP	Natick, MA	Jun 2017	Mar 2018	12	3,779.000	Y	Oct 2015	Oct 2015
Hardware Force Provider Module(†)	✓	2019	Letterkenny Army Depot / Chambersburg, PA	SS / FP	Natick, MA	Apr 2019	Jan 2020	12	4,006.000	Y	Jun 2017	Jun 2017
Hardware Power Generation and Distribution Kit		2017	Letterkenny Army Depot - 2 / Chambersburg, PA	SS / FP	Natick, MA	Jul 2017	Apr 2018	6	308.000	Y	Oct 2007	Aug 2009
Hardware Power Generation and Distribution Kit	✓	2019	Letterkenny Army Depot / Chambersburg, PA	SS / FP	Natick, MA	Mar 2019	Dec 2019	6	326.000	Y	Oct 2017	Oct 2017
Hardware Expeditionary TRICON Set		2017	Letterkenny Army Depot - 3 / Chambersburg, PA	C / FP	Natick, MA	Jan 2017	Jul 2017	6	367.000	Y	Sep 2009	Jun 2010
Hardware Expeditionary TRICON Set	✓	2019	Letterkenny Army Depot / Chambersburg, PA	C / FP	Natick, MA	Apr 2019	Oct 2019	3	390.000	Y	Oct 2017	Jun 2017

(†) indicates the presence of a P-21

Exhibit P-21, Production Schedule: PB 2019 Army		Date: February 2018
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 2017												Fiscal Year 2018											BALANCE
							Calendar Year 2017												Calendar Year 2018											
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2016	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
Hardware Force Provider Module																														
Prior Years Deliveries: 16																														
	1	2017	ARMY	12	0	12									A -	-	-	-	-	-	-	-	-	2	2	2	2	2	2		0
✓	2	2019	ARMY	12	0	12																								12
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2019 Army		Date: February 2018
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
							Calendar Year 2019												Calendar Year 2020													
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2018	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
Hardware Force Provider Module																															
Prior Years Deliveries: 16																															
	1	2017	ARMY	12	12	0																									0
✓	2	2019	ARMY	12	0	12							A	-	-	-	-	-	-	-	-	4	-	4	-	4					0
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2019 Army		Date: February 2018
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)							
					Initial				Reorder			
		MSR For 2019	1-8-5 For 2019	MAX For 2019	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 - 1 - Chambersburg, PA	4	12	24	0	8	9	17	0	3	9	12
2	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).

Exhibit P-40, Budget Line Item Justification: PB 2019 Army	Date: February 2018
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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	253	133	147	131	6	137	98	88	135	151	-	1,142
Gross/Weapon System Cost *($ in Millions)*	533.166	15.209	15.485	17.521	1.035	18.556	15.973	18.796	27.821	30.735	-	675.741
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	533.166	15.209	15.485	17.521	1.035	18.556	15.973	18.796	27.821	30.735	-	675.741
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**533.166**	**15.209**	**15.485**	**17.521**	**1.035**	**18.556**	**15.973**	**18.796**	**27.821**	**30.735**	**-**	**675.741**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost *($ in Thousands)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Thousands)*	2,107.375	114.353	105.340	133.748	172.500	135.445	162.990	213.591	206.081	203.543	-	591.717

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 the production of the Battlefield Kitchen that will replace the over-age and outdated Mobile Kitchen Trailer (MKT) as the Army's midsized kitchen. The Battlefield Kitchen will provide units with a modern, safer, and more operationally and energy efficient capability. It is designed for today's rations and tactical prime movers that meet Army requirements for improved mobility, survivability, and deployability. In Addition, 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.

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023
Army	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	10.730	11.468	12.934	1.035	13.969	13.115	18.796	27.821	30.735
ANG	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	4.479	4.017	4.587	-	4.587	2.858	-	-	-
Total: Secondary Distribution	**Quantity**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
	Total Obligation Authority	**15.209**	**15.485**	**17.521**	**1.035**	**18.556**	**15.973**	**18.796**	**27.821**	**30.735**

Exhibit P-40, Budget Line Item Justification: PB 2019 Army	Date: February 2018
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	

Exhibits Schedule					Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 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	M65801 / REFRIGERATED CONTAINER SYSTEMS	P-5a, P-21	A		79 / 217.135	45 / 10.124	68 / 10.877	51 / 8.105	6 / 1.035	57 / 9.140
P-5	M65802 / SANITATION CENTER, FIELD FEEDING (FSC)		A		- / 87.304	- / -	- / -	- / 0.315	- / -	- / 0.315
P-5	M65803 / KITCHEN, CONTAINERIZED, FIELD (CK)	P-5a	A		- / 178.061	- / -	- / -	5 / 2.490	- / -	5 / 2.490
P-5	M65806 / Assault Kitchen (AK)	P-5a	A		174 / 50.666	88 / 5.085	79 / 4.608	73 / 4.587	- / -	73 / 4.587
P-40a	R62830 / Battlefield Kitchen (BK)				- / -	- / -	- / -	2 / 2.024	- / -	2 / 2.024
P-40	**Total Gross/Weapon System Cost**				**253 / 533.166**	**133 / 15.209**	**147 / 15.485**	**131 / 17.521**	**6 / 1.035**	**137 / 18.556**

*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 2019 Base procurement dollars in the amount of $17.521 million supports production of 51 Multi Temperature Refrigerated Container Systems (MTRCS) for issue upon deployment to Subsistence Platoons, and maneuver and Support BCT's to implement the configured load subsistence supply concept, 73 Assault Kitchens (AKs) to support company level feeding in light through heavy forces; 2 Battlefield Kitchens (BKs) for performance of First Article Test (FAT) and Initial Operational Test (IOT); and 5 Containerized Kitchens (CKs); and Field Feeding Sanitation Centers (FSCs) for Grow the Army.

The MTRCS provides refrigeration capability for the distribution and storage of rations on the battlefield. The Army was able to reduce manpower by over 500 personnel as a result of the efficiency gained in ration supply operations through use of the MTRCS. The Army is procuring MTRCS to a reduced procurement objective facilitated by a pooled contingency stock of assets to be issued to fill unit requirements at deployment. This allowed the overall requirement to be reduced by over 50% avoiding $330 million in expense. It is imperative that procurement of this stock continue to be fulfilled in order to meet essential supply demands during contingency missions.

FY 2019 OCO procurement dollars in the amount of $1.035 million supports production of 6 Multi Temperature Refrigerated Container System (MTRCS) for issue upon deployment to Quartermaster Supply Companies and maneuver and Support BCT's to implement configured load subsistence supply during contingency operations.

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.

Exhibit P-5, Cost Analysis: PB 2019 Army		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 25	**P-1 Line Item Number / Title:** 9120M65800 / Field Feeding Equipment	**Item Number / Title [DODIC]:** M65801 / REFRIGERATED CONTAINER SYSTEMS
ID Code (A=Service Ready, B=Not Service Ready) : A		**MDAP/MAIS Code:**

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Procurement Quantity *(Units in Each)*	79	45	68	51	6	57
Gross/Weapon System Cost *($ in Millions)*	217.135	10.124	10.877	8.105	1.035	9.140
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	217.135	10.124	10.877	8.105	1.035	9.140
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**217.135**	**10.124**	**10.877**	**8.105**	**1.035**	**9.140**
(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)*	2,748.544	224.978	159.956	158.922	172.500	160.351

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

Cost Elements	Prior Years			FY 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 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 MTRCS(†)	1,658.277	112	185.727	139.378	45	6.272	120.368	68	8.185	114.510	51	5.840	114.500	6	0.687	114.509	57	6.527
Hardware Spare Parts	-	-	1.286	-	-	0.264	-	-	0.067	-	-	0.051	-	-	0.006	-	-	0.057
System Engineering/ Program Management	-	-	8.954	-	-	1.361	-	-	1.155	-	-	1.092	-	-	0.194	-	-	1.286
Fielding	-	-	11.873	-	-	1.337	-	-	0.871	-	-	0.663	-	-	0.078	-	-	0.741
Testing	-	-	2.881	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Data	-	-	3.221	-	-	0.450	-	-	-	-	-	-	-	-	-	-	-	-
Engineering Changes	-	-	3.193	-	-	0.440	-	-	0.599	-	-	0.459	-	-	0.070	-	-	0.529
Subtotal: Recurring Cost	-	-	*217.135*	-	-	*10.124*	-	-	*10.877*	-	-	*8.105*	-	-	*1.035*	-	-	*9.140*
Subtotal: Flyaway Cost	**-**	**-**	***217.135***	**-**	**-**	***10.124***	**-**	**-**	***10.877***	**-**	**-**	***8.105***	**-**	**-**	***1.035***	**-**	**-**	***9.140***
Gross/Weapon System Cost	**2,748.544**	**79**	**217.135**	**224.978**	**45**	**10.124**	**159.956**	**68**	**10.877**	**158.922**	**51**	**8.105**	**172.500**	**6**	**1.035**	**160.351**	**57**	**9.140**

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Army	Quantity	45	68	51	6	57
	Total Obligation Authority	10.124	10.877	8.105	1.035	9.140
Total:	**Quantity**	**45**	**68**	**51**	**6**	**57**

Exhibit P-5, Cost Analysis: PB 2019 Army		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 25	P-1 Line Item Number / Title: 9120M65800 / Field Feeding Equipment	Item Number / Title [DODIC]: M65801 / REFRIGERATED CONTAINER SYSTEMS
ID Code (A=Service Ready, B=Not Service Ready) : A		MDAP/MAIS Code:

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Secondary Distribution	Total Obligation Authority	10.124	10.877	8.105	1.035	9.140

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2019 Army		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 25	P-1 Line Item Number / Title: 9120M65800 / Field Feeding Equipment	Item Number / Title [DODIC]: M65801 / REFRIGERATED CONTAINER SYSTEMS

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 MTRCS(†)		2017	Berg Industries / Spokane, WA	C / FP	RDECOM, Natick, MA	Sep 2017	Dec 2018	45	139.380	Y		Jan 2015
Hardware MTRCS(†)		2018	Berg Industries / Spokane, WA	C / FP	RDECOM, Natick, MA	Feb 2018	Nov 2018	68	120.370	Y		Jul 2015
Hardware MTRCS(†)		2019	Berg Industries / Spokane, WA	C / FP	RDECOM, Natick, MA	Feb 2019	Nov 2019	57	114.510	Y		Jul 2015

(†) indicates the presence of a P-21

Exhibit P-21, Production Schedule: PB 2019 Army		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 25	**P-1 Line Item Number / Title:** 9120M65800 / Field Feeding Equipment	**Item Number / Title [DODIC]:** M65801 / REFRIGERATED CONTAINER SYSTEMS

Cost Elements (Units in Each)							Fiscal Year 2017												Fiscal Year 2018											BALANCE
										Calendar Year 2017														Calendar Year 2018								
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2016	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
Hardware MTRCS																														
Prior Years Deliveries: 112																														
	1	2017	ARMY	45	0	45												A -	-	-	-	-	-	-	-	-	-	-	-	45
	1	2018	ARMY	68	0	68																A -	-	-	-	-	-	-	-	68
	1	2019	ARMY	57	0	57																								57
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2019 Army		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 25	**P-1 Line Item Number / Title:** 9120M65800 / Field Feeding Equipment	**Item Number / Title [DODIC]:** M65801 / REFRIGERATED CONTAINER SYSTEMS

Cost Elements (Units in Each)							Fiscal Year 2019												Fiscal Year 2020												BALANCE
										Calendar Year 2019														Calendar Year 2020									
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2018	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
Hardware MTRCS																															
Prior Years Deliveries: 112																															
	1	2017	ARMY	45	0	45	-	-	1	4	4	4	4	4	4	4	4	4	4	4											0
	1	2018	ARMY	68	0	68	-	6	6	6	6	6	6	6	6	6	6	8													0
	1	2019	ARMY	57	0	57					A -	-	-	-	-	-	-	-	-	6	6	6	6	6	6	6	6	6	3		0
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2019 Army		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 25	**P-1 Line Item Number / Title:** 9120M65800 / Field Feeding Equipment	**Item Number / Title [DODIC]:** M65801 / REFRIGERATED CONTAINER SYSTEMS

MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Month)			Procurement Leadtime (Months)							
					Initial				Reorder			
		MSR For 2019	1-8-5 For 2019	MAX For 2019	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	Berg Industries - Spokane, WA	6	10	24	0	12	14	26	0	5	9	14

"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).

Exhibit P-5, Cost Analysis: PB 2019 Army		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 25	**P-1 Line Item Number / Title:** 9120M65800 / Field Feeding Equipment	**Item Number / Title [DODIC]:** M65802 / SANITATION CENTER, FIELD FEEDING (FSC)
ID Code (A=Service Ready, B=Not Service Ready) : A		**MDAP/MAIS Code:**

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	87.304	-	-	0.315	-	0.315
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	87.304	-	-	0.315	-	0.315
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**87.304**	**-**	**-**	**0.315**	**-**	**0.315**
(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 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 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 FSC	27.847	2,819	78.500	-	-	-	-	-	-	59.000	5	0.295	-	-	-	59.000	5	0.295
Engineering Support	-	-	2.531	-	-	-	-	-	-	-	-	0.015	-	-	-	-	-	0.015
ILS	-	-	1.762	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fielding/NET	-	-	1.688	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PM Support	-	-	2.822	-	-	-	-	-	-	-	-	0.005	-	-	-	-	-	0.005
Subtotal: Recurring Cost	-	-	*87.304*	-	-	-	-	-	-	-	-	*0.315*	-	-	-	-	-	*0.315*
Subtotal: Flyaway Cost	**-**	**-**	***87.304***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***0.315***	**-**	**-**	**-**	**-**	**-**	***0.315***
Gross/Weapon System Cost	**-**	**-**	**87.304**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**0.315**	**-**	**-**	**-**	**-**	**-**	**0.315**

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Army	Quantity	-	-	-	-	-
	Total Obligation Authority	-	-	0.315	-	0.315
Total: Secondary Distribution	**Quantity**	**-**	**-**	**-**	**-**	**-**
	Total Obligation Authority	**-**	**-**	**0.315**	**-**	**0.315**

Exhibit P-5, Cost Analysis: PB 2019 Army		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 25	**P-1 Line Item Number / Title:** 9120M65800 / Field Feeding Equipment	**Item Number / Title [DODIC]:** M65803 / KITCHEN, CONTAINERIZED, FIELD (CK)
ID Code (A=Service Ready, B=Not Service Ready) : A		**MDAP/MAIS Code:**

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Procurement Quantity *(Units in Each)*	-	-	-	5	-	5
Gross/Weapon System Cost *($ in Millions)*	178.061	-	-	2.490	-	2.490
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	178.061	-	-	2.490	-	2.490
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**178.061**	**-**	**-**	**2.490**	**-**	**2.490**
(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)*	-	-	-	498.000	-	498.000

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

Cost Elements	Prior Years			FY 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 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 CK(†)	8,481.643	14	118.743	-	-	-	-	-	-	360.000	5	1.800	-	-	-	360.000	5	1.800
Initial Spares	-	-	18.274	-	-	-	-	-	-	-	-	0.015	-	-	-	-	-	0.015
Engineering Support/ PM Support	-	-	11.618	-	-	-	-	-	-	-	-	0.475	-	-	-	-	-	0.475
Testing	-	-	7.798	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fielding/NET	-	-	13.322	-	-	-	-	-	-	-	-	0.113	-	-	-	-	-	0.113
Data	-	-	8.056	-	-	-	-	-	-	-	-	0.087	-	-	-	-	-	0.087
ECP	-	-	0.250	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Recurring Cost	-	-	*178.061*	-	-	-	-	-	-	-	-	*2.490*	-	-	-	-	-	*2.490*
Subtotal: Flyaway Cost	**-**	**-**	***178.061***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***2.490***	**-**	**-**	**-**	**-**	**-**	***2.490***
Gross/Weapon System Cost	**-**	**-**	**178.061**	**-**	**-**	**-**	**-**	**-**	**-**	**498.000**	**5**	**2.490**	**-**	**-**	**-**	**498.000**	**5**	**2.490**

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Army	Quantity	-	-	5	-	5
	Total Obligation Authority	-	-	2.490	-	2.490
Total:	**Quantity**	**-**	**-**	**5**	**-**	**5**

Exhibit P-5, Cost Analysis: PB 2019 Army		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 25	**P-1 Line Item Number / Title:** 9120M65800 / Field Feeding Equipment	**Item Number / Title [DODIC]:** M65803 / KITCHEN, CONTAINERIZED, FIELD (CK)
ID Code (A=Service Ready, B=Not Service Ready) : A		**MDAP/MAIS Code:**

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Secondary Distribution	Total Obligation Authority	-	-	2.490	-	2.490

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2019 Army		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 25	P-1 Line Item Number / Title: 9120M65800 / Field Feeding Equipment	Item Number / Title [DODIC]: M65803 / KITCHEN, CONTAINERIZED, FIELD (CK)

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 CK		2014	OVC Engineered Solutions / Easton MD	SS / FP	RDECOM, Natick, MA	Jan 2015	Oct 2015	14	321.429	Y		Jun 2014
Hardware CK		2019	OVC Engineered Solutions / Easton MD	SS / FP	RDECOM, Matick, MA	Mar 2019	Dec 2019	5	360.000	Y		Dec 2018

Exhibit P-5, Cost Analysis: PB 2019 Army		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 25	**P-1 Line Item Number / Title:** 9120M65800 / Field Feeding Equipment	**Item Number / Title [DODIC]:** M65806 / Assault Kitchen (AK)
ID Code (A=Service Ready, B=Not Service Ready) : A		**MDAP/MAIS Code:**

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Procurement Quantity *(Units in Each)*	174	88	79	73	-	73
Gross/Weapon System Cost *($ in Millions)*	50.666	5.085	4.608	4.587	-	4.587
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	50.666	5.085	4.608	4.587	-	4.587
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**50.666**	**5.085**	**4.608**	**4.587**	**-**	**4.587**
(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)*	291.184	57.784	58.329	62.836	-	62.836

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

Cost Elements	Prior Years			FY 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 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 AK BASE(†)	262.333	186	48.794	44.705	88	3.934	43.506	79	3.437	46.507	73	3.395	-	-	-	46.507	73	3.395
Hardware Spare Parts	-	-	0.066	-	-	0.026	-	-	0.024	-	-	0.022	-	-	-	-	-	0.022
Engineering Changes	-	-	0.118	-	-	0.011	-	-	0.059	-	-	0.048	-	-	-	-	-	0.048
System Engineering/ Program Management	-	-	1.021	-	-	0.612	-	-	0.638	-	-	0.699	-	-	-	-	-	0.699
Fielding	-	-	0.667	-	-	0.502	-	-	0.450	-	-	0.423	-	-	-	-	-	0.423
Subtotal: Recurring Cost	-	-	*50.666*	-	-	*5.085*	-	-	*4.608*	-	-	*4.587*	-	-	-	-	-	*4.587*
Subtotal: Flyaway Cost	**-**	**-**	***50.666***	**-**	**-**	***5.085***	**-**	**-**	***4.608***	**-**	**-**	***4.587***	**-**	**-**	**-**	**-**	**-**	***4.587***
Gross/Weapon System Cost	**291.184**	**174**	**50.666**	**57.784**	**88**	**5.085**	**58.329**	**79**	**4.608**	**62.836**	**73**	**4.587**	**-**	**-**	**-**	**62.836**	**73**	**4.587**

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Army	Quantity	10	10	-	-	-
	Total Obligation Authority	0.606	0.591	-	-	-
ANG	Quantity	78	69	73	-	73
	Total Obligation Authority	4.479	4.017	4.587	-	4.587
Total: Secondary Distribution	**Quantity**	**88**	**79**	**73**	**-**	**73**
	Total Obligation Authority	**5.085**	**4.608**	**4.587**	**-**	**4.587**

Exhibit P-5, Cost Analysis: PB 2019 Army		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 25	P-1 Line Item Number / Title: 9120M65800 / Field Feeding Equipment	Item Number / Title [DODIC]: M65806 / Assault Kitchen (AK)
ID Code (A=Service Ready, B=Not Service Ready) : A	MDAP/MAIS Code:	

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2019 Army		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 25	P-1 Line Item Number / Title: 9120M65800 / Field Feeding Equipment	Item Number / Title [DODIC]: M65806 / Assault Kitchen (AK)

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 AK BASE		2017	Rock Island Arsenal / Rock Island, IL	MIPR	PMFSS, Natick, MA	Feb 2017	Oct 2017	88	44.710	Y		Oct 2011
Hardware AK BASE		2018	Rock Island Arsenal / Rock Island, IL	MIPR	PMFSS, Natick, MA	Feb 2018	Oct 2018	79	43.510	Y		Oct 2011
Hardware AK BASE		2019	Rock Island Arsenal / Rock Island, IL	MIPR	PMFSS, Natick, MA	Feb 2019	Oct 2019	73	46.510	Y		Oct 2011

Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Army		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 25	P-1 Line Item Number / Title: 9120M65800 / Field Feeding Equipment	Aggregated Items Title: Various

Item Number / Title [DODIC]	ID CD	MDAP/ MAIS Code	Prior Years			FY 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 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)
Battlefield Kitchen (BK)																				
R62830 / Battlefield Kitchen (BK)			-	-	-	-	-	-	-	-	-	1,012.000	2	2.024	-	-	-	1,012.000	2	2.024
Secondary Distribution																				
Army				-	-		-	-		-	-		2	2.024		-	-		2	2.024
Subtotal: Battlefield Kitchen (BK)			**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***2.024***	**-**	**-**	**-**	**-**	**-**	***2.024***
Total			**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**2.024**	**-**	**-**	**-**	**-**	**-**	**2.024**

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

Exhibit P-40, Budget Line Item Justification: PB 2019 Army	Date: February 2018
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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	3,064	983	2,927	5,452	60	5,512	5,960	7,713	8,255	9,315	-	43,729
Gross/Weapon System Cost *($ in Millions)*	594.081	20.909	32.587	44.855	1.980	46.835	52.012	61.620	55.750	46.646	-	910.440
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	594.081	20.909	32.587	44.855	1.980	46.835	52.012	61.620	55.750	46.646	-	910.440
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**594.081**	**20.909**	**32.587**	**44.855**	**1.980**	**46.835**	**52.012**	**61.620**	**55.750**	**46.646**	**-**	**910.440**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost *($ in Thousands)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Thousands)*	193.891	21.271	11.133	8.227	33.000	8.497	8.727	7.989	6.753	5.008	-	20.820

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.

-Early T-11 and MC-6 parachutes are reaching the end of their service life and replacement systems are being procured. MC-6 procurements began in FY16 and T-11/associated T-11 Pack Tray procurements will begin in FY18.

-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 capability, that also provides a static line deployed ram air parachute insertion capability. The RA-1 allows personnel to exit at altitudes between 3,500 ft to 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 through FY19.

-The Parachutist Navigation System (PARANAVSYS) provides a Global Positioning System (GPS) capability for the RA-1 Free-fall parachutists. Procurement begins in 2018 with an AAO of 5,228.

-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 1557 and the AAO for 10K systems is 467.

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023
Army	Quantity	695	2,925	5,162	60	5,222	4,263	7,513	8,127	7,023
	Total Obligation Authority	11.129	32.323	37.895	1.980	39.875	38.543	60.311	54.933	36.458
ANG	Quantity	89	2	290	-	290	1,697	200	128	2,292
	Total Obligation Authority	7.561	0.264	6.960	-	6.960	13.469	1.309	0.817	10.188

Exhibit P-40, Budget Line Item Justification: PB 2019 Army		Date: February 2018
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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023
AR	Quantity	199	-	-	-	-	-	-	-	-
	Total Obligation Authority	2.219	-	-	-	-	-	-	-	-
Total: Secondary Distribution	**Quantity**	**983**	**2,927**	**5,452**	**60**	**5,512**	**5,960**	**7,713**	**8,255**	**9,315**
	Total Obligation Authority	**20.909**	**32.587**	**44.855**	**1.980**	**46.835**	**52.012**	**61.620**	**55.750**	**46.646**

Exhibit P-40, Budget Line Item Justification: PB 2019 Army	Date: February 2018
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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 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	P-5a, P-21			2,934 / 439.191	865 / 16.611	2,852 / 28.440	5,424 / 41.104	- / -	5,424 / 41.104
P-5	MA7806 / Precision Airdrop	P-5a			130 / 154.890	118 / 4.298	75 / 4.147	28 / 3.751	60 / 1.980	88 / 5.731
P-40	**Total Gross/Weapon System Cost**				**3,064 / 594.081**	**983 / 20.909**	**2,927 / 32.587**	**5,452 / 44.855**	**60 / 1.980**	**5,512 / 46.835**

*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 2019 Base procurement dollars in the amount of $41.104 million supports the procurement of MC-6 (2200), RA-1 (620), T-11 (2604), T-11R Pack Trays, PARANAVSYS MP (29), PARANAVSYS RTK (38), and PARANAVSYS Protective Case (412).

FY 2019 procurement dollars in the amount of $3.751 million supports production of 28 JPADS 10K systems. The success of JPADS in theater has reinforced the need to execute critical resupply missions without having to place Soldiers and ground vehicle convoys on the ground in high risk situations. Procurement of this system provides a vital precision aerial resupply capability to support the full spectrum of operations. Funding supports a balanced investment strategy for the Army's approved force structure and Army Force Generation (ARFORGEN) requirements.

FY 2019 OCO procurement dollars in the amount of $1.980 million supports production of an additional 60 Joint Precision Airdrop 2K systems for contingency operations.

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.

Exhibit P-5, Cost Analysis: PB 2019 Army		Date: February 2018
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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Procurement Quantity *(Units in Each)*	2,934	865	2,852	5,424	-	5,424
Gross/Weapon System Cost *($ in Millions)*	439.191	16.611	28.440	41.104	-	41.104
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	439.191	16.611	28.440	41.104	-	41.104
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**439.191**	**16.611**	**28.440**	**41.104**	**-**	**41.104**
(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)*	149.690	19.203	9.972	7.578	-	7.578

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

Cost Elements	Prior Years			FY 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 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																		
Engrg/Fldg/NET	43,130.000	2	86.260	-	-	5.205	4,042.000	1	4.042	4,749.000	1	4.749	-	-	-	4,749.000	1	4.749
MC-6(†)	5.092	25,042	127.510	3.800	215	0.817	3.800	1,100	4.180	3.800	2,200	8.360	-	-	-	3.800	2,200	8.360
RA-1 (ARAPS)(†)	9.877	2,839	28.041	13.069	640	8.364	13.069	652	8.521	13.069	620	8.103	-	-	-	13.069	620	8.103
RA-1 SPARE PARTS(†)	1,537.000	1	1.537	2,225.000	1	2.225	1,299.000	1	1.299	-	-	-	-	-	-	-	-	-
T-11(†)	4.481	43,708	195.843	-	-	-	4.000	1,100	4.400	4.000	2,604	10.416	-	-	-	4.000	2,604	10.416
T-11R Pack Tray	-	-	-	-	-	-	0.175	18,000	3.150	0.175	18,000	3.150	-	-	-	0.175	18,000	3.150
E/EAAD	-	-	-	-	-	-	-	-	-	6.500	700	4.550	-	-	-	6.500	700	4.550
PARANAVSYS MP	-	-	-	-	-	-	5.000	10	0.050	5.000	29	0.145	-	-	-	5.000	29	0.145
PARANAVSYS RTK	-	-	-	-	-	-	12.000	100	1.200	12.211	38	0.464	-	-	-	12.211	38	0.464
PARANAVSYS Protective Cases	-	-	-	-	-	-	0.650	1,197	0.778	0.648	412	0.267	-	-	-	0.648	412	0.267
Nett Warrior Hardware	-	-	-	-	-	-	4.100	200	0.820	-	-	-	-	-	-	-	-	-
Altimeters	-	-	-	-	-	-	-	-	-	1.500	600	0.900	-	-	-	1.500	600	0.900
Subtotal: Recurring Cost	-	-	*439.207*	-	-	*16.611*	-	-	*28.440*	-	-	*41.104*	-	-	-	-	-	*41.104*
Subtotal: Flyaway Cost	**-**	**-**	***439.207***	**-**	**-**	***16.611***	**-**	**-**	***28.440***	**-**	**-**	***41.104***	**-**	**-**	**-**	**-**	**-**	***41.104***
Gross/Weapon System Cost	**149.690**	**2,934**	**439.191**	**19.203**	**865**	**16.611**	**9.972**	**2,852**	**28.440**	**7.578**	**5,424**	**41.104**	**-**	**-**	**-**	**7.578**	**5,424**	**41.104**

Exhibit P-5, Cost Analysis: PB 2019 Army		Date: February 2018
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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Army	Quantity	577	2,852	5,136	-	5,136
	Total Obligation Authority	6.831	28.440	34.408	-	34.408
ANG	Quantity	89	-	288	-	288
	Total Obligation Authority	7.561	-	6.696	-	6.696
AR	Quantity	199	-	-	-	-
	Total Obligation Authority	2.219	-	-	-	-
Total: Secondary Distribution	**Quantity**	**865**	**2,852**	**5,424**	**-**	**5,424**
	Total Obligation Authority	**16.611**	**28.440**	**41.104**	**-**	**41.104**

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2019 Army		Date: February 2018
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

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
MC-6(†)		2017	Mills Manufacturing / Ashville, NC	C / FFP	TBD	Apr 2017	Jul 2017	215	3.800			
MC-6(†)		2018	TBD MC-6 / TBD	C / FFP	TBD	Feb 2018	May 2018	1,100	3.800			
MC-6(†)		2019	TBD MC-6 / TBD	C / FFP	TBD	Feb 2019	May 2019	2,200	3.800			
RA-1 (ARAPS)(†)		2017	Airborne Sys N America of NJ / Pennsauken, NJ	C / FFP	Natick, MA	May 2017	Oct 2017	640	13.070			
RA-1 (ARAPS)(†)		2018	TBD RA-1 / TBD	C / FFP	TBD	May 2018	Oct 2018	652	13.070			
RA-1 SPARE PARTS		2017	Airborne Sys N America of NJ / Pennsauken, NJ	C / FFP	Natick, MA	May 2017	Sep 2017	1	2,225.000			
RA-1 SPARE PARTS		2018	TBD RA-1 / TBD	C / FFP	TBD	Jun 2018	Aug 2018	1	1,299.000			
T-11(†)		2018	TBD T-11 / TBD	C / FFP	TBD	Oct 2017	Jan 2018	1,100	4.000			
T-11(†)		2019	TBD T-11 / TBD	C / FFP	TBD	Oct 2018	Jan 2019	2,604	4.000			

(†) indicates the presence of a P-21

Remarks:
The Engineering/Fielding/New Equipment Training Cost element includes funding to procure Technical Data Packages for various systems including Protective Equipment and Organizational Clothing and Equipment valued at more than $250,000.00

Exhibit P-21, Production Schedule: PB 2019 Army		Date: February 2018
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

Cost Elements (Units in Each)							Fiscal Year 2017												Fiscal Year 2018												
										Calendar Year 2017														Calendar Year 2018									
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2016	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	BALANCE
MC-6																															
Prior Years Deliveries: 25042																															
	2	2017	ARMY	215	0	215							A -	-	-	60	60	50	45												0
	1	2018	ARMY	1,100	0	1,100																	A -	-	-	100	100	100	100	100	600
	1	2019	ARMY	2,200	0	2,200																									2,200
RA-1 (ARAPS)																															
Prior Years Deliveries: 2839																															
	3	2017	ARMY	640	0	640								A -	-	-	-	-	50	-	75	100	100	100	100	100	15				0
	4	2018	ARMY	652	0	652																				A -	-	-	-	-	652
T-11																															
Prior Years Deliveries: 43708																															
	5	2018	ARMY	1,100	0	1,100													A -	-	-	100	125	125	125	125	125	125	125	125	0
	5	2019	ARMY	2,604	0	2,604																									2,604
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2019 Army		Date: February 2018
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

Cost Elements (Units in Each)							Fiscal Year 2019												Fiscal Year 2020												BALANCE
										Calendar Year 2019												Calendar Year 2020											
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2018	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
MC-6																															
Prior Years Deliveries: 25042																															
	2	2017	ARMY	215	215	0																									0
	1	2018	ARMY	1,100	500	600	100	100	100	100	100	100																			0
	1	2019	ARMY	2,200	0	2,200					A -	-	-	200	200	200	200	200	300	300	300	300										0
RA-1 (ARAPS)																															
Prior Years Deliveries: 2839																															
	3	2017	ARMY	640	640	0																									0
	4	2018	ARMY	652	0	652	100	100	100	100	102	100	50																		0
T-11																															
Prior Years Deliveries: 43708																															
	5	2018	ARMY	1,100	1,100	0																									0
	5	2019	ARMY	2,604	0	2,604	A -	-	-	300	300	300	300	300	404	400	300														0
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2019 Army		Date: February 2018
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

MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Month)			Procurement Leadtime (Months)							
					Initial				Reorder			
		MSR For 2019	1-8-5 For 2019	MAX For 2019	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 MC-6 - TBD	15	100	300	0	0	0	0	0	0	0	0
2	Mills Manufacturing - Ashville, NC	15	100	200	0	0	0	0	0	0	0	0
3	Airborne Sys N America of NJ - Pennsauken, NJ	15	100	200	0	0	0	0	0	0	0	0
4	TBD RA-1 - TBD	1	100	200	0	0	0	0	0	0	0	0
5	TBD T-11 - TBD	100	150	450	0	0	0	0	0	0	0	0

Remarks:
Production rates shown 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).

Exhibit P-5, Cost Analysis: PB 2019 Army		Date: February 2018
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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Procurement Quantity *(Units in Each)*	130	118	75	28	60	88
Gross/Weapon System Cost *($ in Millions)*	154.890	4.298	4.147	3.751	1.980	5.731
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	154.890	4.298	4.147	3.751	1.980	5.731
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**154.890**	**4.298**	**4.147**	**3.751**	**1.980**	**5.731**
(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)*	1,191.462	36.424	55.293	133.964	33.000	65.125

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

Cost Elements	Prior Years			FY 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 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(†)	715.510	100	71.551	21.048	105	2.210	33.000	60	1.980	-	-	-	33.000	60	1.980	33.000	60	1.980
Hardware Spares JPADS 2K	-	-	-	-	-	0.096	-	-	-	-	-	-	-	-	-	-	-	-
Sys Test & Evaluate, Production JPADS 2K	-	-	-	-	-	0.056	-	-	-	-	-	-	-	-	-	-	-	-
Sys Engineer/Program Mgt JPADS 2K	-	-	-	-	-	0.033	-	-	-	-	-	-	-	-	-	-	-	-
Fielding/Training JPADS 2K	-	-	-	-	-	0.043	-	-	-	-	-	-	-	-	-	-	-	-
Data JPADS 2K	-	-	-	-	-	0.059	-	-	-	-	-	-	-	-	-	-	-	-
Engineering Changes JPADS 2K	-	-	-	-	-	0.050	-	-	-	-	-	-	-	-	-	-	-	-
CLS/Shipping JPADS 2K	-	-	-	-	-	0.046	-	-	-	-	-	-	-	-	-	-	-	-
Hardware JPADS 10K(†)	632.800	85	53.788	94.000	13	1.222	97.000	15	1.455	100.000	28	2.800	-	-	-	100.000	28	2.800
System Test & Evaluation, Production	-	-	5.368	-	-	0.092	-	-	0.186	-	-	0.140	-	-	-	-	-	0.140
Engineering Changes	-	-	5.764	-	-	0.085	-	-	0.135	-	-	0.140	-	-	-	-	-	0.140
Fielding/Training	-	-	5.983	-	-	0.126	-	-	0.180	-	-	0.196	-	-	-	-	-	0.196

Exhibit P-5, Cost Analysis: PB 2019 Army		Date: February 2018
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:**

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

Cost Elements	Prior Years			FY 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 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	-	-	5.540	-	-	0.025	-	-	0.058	-	-	0.070	-	-	-	-	-	0.070
Data	-	-	5.211	-	-	0.041	-	-	0.067	-	-	0.115	-	-	-	-	-	0.115
Spares	-	-	1.078	-	-	0.090	-	-	0.040	-	-	0.168	-	-	-	-	-	0.168
CLS/Shipping	-	-	0.607	-	-	0.024	-	-	0.046	-	-	0.122	-	-	-	-	-	0.122
Subtotal: Recurring Cost	-	-	*154.890*	-	-	*4.298*	-	-	*4.147*	-	-	*3.751*	-	-	*1.980*	-	-	*5.731*
Subtotal: Flyaway Cost	**-**	**-**	***154.890***	**-**	**-**	***4.298***	**-**	**-**	***4.147***	**-**	**-**	***3.751***	**-**	**-**	***1.980***	**-**	**-**	***5.731***
Gross/Weapon System Cost	**1,191.462**	**130**	**154.890**	**36.424**	**118**	**4.298**	**55.293**	**75**	**4.147**	**133.964**	**28**	**3.751**	**33.000**	**60**	**1.980**	**65.125**	**88**	**5.731**

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Army	Quantity	118	73	26	60	86
	Total Obligation Authority	4.298	3.883	3.487	1.980	5.467
ANG	Quantity	-	2	2	-	2
	Total Obligation Authority	-	0.264	0.264	-	0.264
Total: Secondary Distribution	**Quantity**	**118**	**75**	**28**	**60**	**88**
	Total Obligation Authority	**4.298**	**4.147**	**3.751**	**1.980**	**5.731**

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2019 Army		Date: February 2018
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	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 JPADS 2K		2017	TBD / TBD	C / IDIQ	RDECOM, Natick MA	Mar 2017	Aug 2017	105	21.050	Y		Jun 2014
Hardware JPADS 2K		2018	TBD / TBD	C / IDIQ	RDECOM, Natick MA	Feb 2018	Jul 2018	60	33.000	Y		Jun 2014
Hardware JPADS 2K	✓	2019	TBD / TBD	C / IDIQ	RDECOM, Natick MA	Feb 2019	Jul 2019	60	33.000	Y		Jun 2014
Hardware JPADS 10K		2016	Airborne Systems NA / Pennsauken, NJ	C / IDIQ	RDECOM, Natick MA	Mar 2016	Aug 2016	15	97.000	Y		Sep 2013
Hardware JPADS 10K		2017	Airborne Systems NA / Pennsauken, NJ	C / IDIQ	RDECOM, Natick MA	Mar 2017	Aug 2017	13	94.000	Y		Sep 2013
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.

Exhibit P-40, Budget Line Item Justification: PB 2019 Army	Date: February 2018
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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	732	340	157	193	-	193	336	400	455	409	-	3,022
Gross/Weapon System Cost *($ in Millions)*	200.373	36.809	10.426	17.173	-	17.173	16.319	23.803	25.996	27.409	-	358.308
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	200.373	36.809	10.426	17.173	-	17.173	16.319	23.803	25.996	27.409	-	358.308
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**200.373**	**36.809**	**10.426**	**17.173**	**-**	**17.173**	**16.319**	**23.803**	**25.996**	**27.409**	**-**	**358.308**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost *($ in Thousands)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Thousands)*	273.734	108.262	66.408	88.979	-	88.979	48.568	59.508	57.134	67.015	-	118.567

Description:

The Family Of Engineering Combat and Construction Sets (ECACS) is a family of systems that will support operations by combat and construction engineer teams in urban and rural environments. ECACS sets utilized in urban environment will aid in detection, protection, surveillance, monitoring, evacuation and clearing. ECACS sets utilized in rural environments will allow clearing and troop mobility support areas to include airfields, ports, facilities, and roads. Vertical Skills Engineer Construction Kits (VSECK) has six types which each provide tools and power equipment to meet maintenance and construction mission requirements.

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. It provides engineers and others with specialized tools enabling them to conduct operations in urban environments in a safer, more expedient manner. The components include thermal scopes, remote viewing instruments, detectors for explosives and gases, portable welders, metal cutting torches, rescue tools, mechanical entry tools, winch, and battery operated drills and saws. The set will standardize tools, reducing logistical support and provide a Type Classified (TC)-standard Army system.
Army Acquisition Objective (AAO) for Urban Operations, Platoon Set (UOpPS) is 1165.

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. Components include portal 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 will standardize tools, reducing logistical support and provide a Type Classified (TC)-standard Army system.
Army Acquisition Objective (AAO) for Urban Operations, Squad Set (UOpSS) is 1827.

The Engineer Equipment Set: Hydraulic Electric Pneumatic Petroleum Operated Equipment (HEPPOE) supports combat and construction engineer tasks across the entire spectrum of the operation area such as clearing buildings for repair and construction, clearing areas around road constructions, port openings and any other urban areas that require operations. The HEPPOE consists of 2 power units that provide hydraulic, electric and pneumatic power in conjunction with a rapid inventory 13 case tool load (Concrete Chain Saws, Hammer Drill, Sump Pump, Pavement Breakers, etc.) that will enhance the ability to operate in an urban area. The HEPPOE replaces two legacy systems through modernization, consolidation and optimization. .
Army Acquisition Objective (AAO) for Hydraulic Electric Pneumatic Petroleum Operated Equipment (HEPPOE) is 752.

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. Hand tools include hammers, utility knives, chisels, punches, hacksaws, hand saws, pliers, screwdrivers, squares and tape measures. VSECK Type I replaces one

Exhibit P-40, Budget Line Item Justification: PB 2019 Army	Date: February 2018
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

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 2452.

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. 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. Cordless power tools include: hammer drills, right angle drills, circular saws, jig saws and reciprocating saws. 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 624.

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. 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 272.

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. 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 834.

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. 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 538.

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. 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 815.

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023
Army	Quantity	98	110	143	-	143	138	212	205	111
	Total Obligation Authority	17.260	2.896	8.986	-	8.986	6.761	16.239	15.855	8.530
ANG	Quantity	158	26	49	-	49	126	137	183	203
	Total Obligation Authority	13.115	4.172	5.500	-	5.500	6.905	6.168	8.172	14.405
AR	Quantity	84	21	1	-	1	72	51	67	95
	Total Obligation Authority	6.434	3.358	2.687	-	2.687	2.653	1.396	1.969	4.474
Total: Secondary Distribution	**Quantity**	**340**	**157**	**193**	**-**	**193**	**336**	**400**	**455**	**409**
	Total Obligation Authority	**36.809**	**10.426**	**17.173**	**-**	**17.173**	**16.319**	**23.803**	**25.996**	**27.409**

Exhibit P-40, Budget Line Item Justification: PB 2019 Army	Date: February 2018
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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 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		58 / 93.818	62 / 18.931	9 / 2.552	2 / 5.374	- / -	2 / 5.374
P-5	R70120 / URBAN OPERATIONS, PLATOON SET	P-5a, P-21	A		303 / 54.038	60 / 7.168	25 / 4.354	38 / 6.747	- / -	38 / 6.747
P-5	R70130 / URBAN OPERATIONS, SQUAD SET	P-5a	A		371 / 52.517	102 / 7.689	7 / 0.567	22 / 1.680	- / -	22 / 1.680
P-5	R70170 / Vertical Skills Engr Const Kit: Type VI				- / -	36 / 0.977	47 / 1.412	38 / 1.066	- / -	38 / 1.066
P-5	R70180 / Vertical Skills Engr Const Kit: Type V	P-5a			- / -	15 / 0.639	8 / 0.348	8 / 0.351	- / -	8 / 0.351
P-5	R70185 / Vertical Skills Engr Const Kit: Type IV	P-5a			- / -	10 / 0.294	14 / 0.326	21 / 0.541	- / -	21 / 0.541
P-5	R70195 / Vertical Skills Engr Const Kit: Type III	P-5a			- / -	15 / 0.473	9 / 0.338	10 / 0.341	- / -	10 / 0.341
P-5	R70196 / Vertical Skills Engr Const Kit: Type II	P-5a			- / -	14 / 0.350	16 / 0.321	32 / 0.779	- / -	32 / 0.779
P-5	R70198 / Vertical Skills Engr Const Kit: Type I	P-5a	A		- / -	26 / 0.288	22 / 0.208	22 / 0.294	- / -	22 / 0.294
P-40	**Total Gross/Weapon System Cost**				**732 / 200.373**	**340 / 36.809**	**157 / 10.426**	**193 / 17.173**	**- / -**	**193 / 17.173**

*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:

FY19 base funding in the amount of $1.774 million procures 2 HEPPOE. The Engineer Equipment Set: Hydraulic-Electric-Pneumatic-Petroleum-Operated Equipment (HEPPOE) will enhance mission accomplishment by replacing outdated systems. Providing this soldier portable set will allow soldiers to increase capability to complete required missions, provide support to civil authorities, and deter/defeat hybrid threats in support of the Army process. In addition, FY19 Base HEPPOE funding in the amount of $3.600 million will support an Army Engineer and Research Development Center purchase of Hydrologic Survey vessels for the Korean Deterrence Initiative (approximately 4 sets).

FY19 base funding in the amount of $6.747 million procures 38 Urban Operations Platoon Sets. The Engineer Equipment Set: Urban Operations, Platoon Set (UOpPS) uniquely fills capability gaps that exist at the
platoon level for conducting operations in urban environments. 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.

FY19 base funding in the amount of $1.680 million procures 22 Urban Operations Squad Sets. The Engineer Equipment Set: Urban Operations, Squad Set (UOpSS) uniquely fills capability gaps that exist at the squad level for conducting operations in urban environments. 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.

FY19 base funding in the amount of $0.294 million procures 22 Type I VSECK assets. 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. 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.

FY19 base funding in the amount of $0.779 million procures 32 Type II VSECK assets. 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. This will increase productivity, expand capabilities, reduce risk and will contribute to rapid mobility of Construction Engineers. Providing this capability to the

Exhibit P-40, Budget Line Item Justification: PB 2019 Army		Date: February 2018
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		

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.

FY19 base funding in the amount of $0.341 million procures 10 Type III VSECK assets. 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. This will increase productivity, expand capabilities, reduce risk and will contribute to rapid mobility of Construction Engineers. Providing this capability to the solider 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.

FY19 base funding in the amount of $0.541 million procures 21 Type IV VSECK assets. 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. 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.

FY19 base funding in the amount of $0.351 million procures 8 Type V VSECK assets. 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. 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

FY19 base funding in the amount of $1.066 million procures 38 Type VI VSECK assets. 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. 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.

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.

Exhibit P-5, Cost Analysis: PB 2019 Army		Date: February 2018
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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Procurement Quantity *(Units in Each)*	58	62	9	2	-	2
Gross/Weapon System Cost *($ in Millions)*	93.818	18.931	2.552	5.374	-	5.374
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	93.818	18.931	2.552	5.374	-	5.374
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**93.818**	**18.931**	**2.552**	**5.374**	**-**	**5.374**
(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)*	1,617.552	305.339	283.556	2,687.000	-	2,687.000

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

Cost Elements	Prior Years			FY 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 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	-	-	6.848	-	-	5.089	-	-	0.275	-	-	0.537	-	-	-	-	-	0.537
Quality Assurance	-	-	3.961	-	-	0.023	-	-	0.027	-	-	0.165	-	-	-	-	-	0.165
Engineering	-	-	8.885	-	-	0.048	-	-	0.036	-	-	0.169	-	-	-	-	-	0.169
HEPPOE(†)	204.264	318	64.956	212.129	62	13.152	215.000	9	1.935	369.000	2	0.738	-	-	-	369.000	2	0.738
System Fielding Support	-	-	9.168	-	-	0.619	-	-	0.279	-	-	0.165	-	-	-	-	-	0.165
Subtotal: Recurring Cost	-	-	*93.818*	-	-	*18.931*	-	-	*2.552*	-	-	*1.774*	-	-	-	-	-	*1.774*
Non Recurring Cost																		
Hydrologic Survey Vessels	-	-	-	-	-	-	-	-	-	-	-	3.600	-	-	-	-	-	3.600
Subtotal: Non Recurring Cost	-	-	-	-	-	-	-	-	-	-	-	*3.600*	-	-	-	-	-	*3.600*
Subtotal: Flyaway Cost	**-**	**-**	***93.818***	**-**	**-**	***18.931***	**-**	**-**	***2.552***	**-**	**-**	***5.374***	**-**	**-**	**-**	**-**	**-**	***5.374***
Gross/Weapon System Cost	**1,617.552**	**58**	**93.818**	**305.339**	**62**	**18.931**	**283.556**	**9**	**2.552**	**2,687.000**	**2**	**5.374**	**-**	**-**	**-**	**2,687.000**	**2**	**5.374**

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Army	Quantity	50	-	-	-	-
	Total Obligation Authority	16.079	-	-	-	-
ANG	Quantity	7	1	1	-	1

Exhibit P-5, Cost Analysis: PB 2019 Army		Date: February 2018
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:

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
	Total Obligation Authority	1.664	0.284	2.687	-	2.687
AR	Quantity	5	8	1	-	1
	Total Obligation Authority	1.188	2.268	2.687	-	2.687
Total: Secondary Distribution	**Quantity**	**62**	**9**	**2**	**-**	**2**
	Total Obligation Authority	**18.931**	**2.552**	**5.374**	**-**	**5.374**

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2019 Army		Date: February 2018
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	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
HEPPOE		2016	Kipper / Gainsville GA	SS / FFP	TACOM, Warren, MI	Oct 2015	Apr 2016	58	202.379			
HEPPOE		2017	Kipper 2 / Gainsville GA	SS / FFP	TACOM, WARREN, MI	Oct 2016	Apr 2017	62	212.130			
HEPPOE		2018	Kipper / Gainsville GA	SS / FFP	TACOM, Warren, MI	Oct 2017	Apr 2018	9	215.000			
HEPPOE		2019	Kipper / Gainsville GA	SS / FFP	TACOM, Warren, MI	Oct 2018	Apr 2019	2	369.000			

Remarks:
FY19 is below MSR

Exhibit P-5, Cost Analysis: PB 2019 Army		Date: February 2018
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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Procurement Quantity *(Units in Each)*	303	60	25	38	-	38
Gross/Weapon System Cost *($ in Millions)*	54.038	7.168	4.354	6.747	-	6.747
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	54.038	7.168	4.354	6.747	-	6.747
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**54.038**	**7.168**	**4.354**	**6.747**	**-**	**6.747**
(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)*	178.343	119.467	174.160	177.553	-	177.553

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

Cost Elements	Prior Years			FY 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 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	-	-	6.425	-	-	-	-	-	0.426	-	-	0.675	-	-	-	-	-	0.675
Quality Assurance Support	-	-	0.615	-	-	0.010	-	-	0.025	-	-	0.165	-	-	-	-	-	0.165
Engineering Support	-	-	11.675	-	-	0.030	-	-	0.058	-	-	0.169	-	-	-	-	-	0.169
System Fielding Support	-	-	2.178	-	-	0.010	-	-	0.300	-	-	0.187	-	-	-	-	-	0.187
Subtotal: Recurring Cost	-	-	*20.893*	-	-	*0.050*	-	-	*0.809*	-	-	*1.196*	-	-	-	-	-	*1.196*
Subtotal: Flyaway Cost	**-**	**-**	***20.893***	**-**	**-**	***0.050***	**-**	**-**	***0.809***	**-**	**-**	***1.196***	**-**	**-**	**-**	**-**	**-**	***1.196***
Hardware Cost																		
Recurring Cost																		
Urban Ops Platoon(†)	92.069	360	33.145	118.633	60	7.118	141.800	25	3.545	146.079	38	5.551	-	-	-	146.079	38	5.551
Subtotal: Recurring Cost	-	-	*33.145*	-	-	*7.118*	-	-	*3.545*	-	-	*5.551*	-	-	-	-	-	*5.551*
Subtotal: Hardware Cost	**-**	**-**	***33.145***	**-**	**-**	***7.118***	**-**	**-**	***3.545***	**-**	**-**	***5.551***	**-**	**-**	**-**	**-**	**-**	***5.551***
Gross/Weapon System Cost	**178.343**	**303**	**54.038**	**119.467**	**60**	**7.168**	**174.160**	**25**	**4.354**	**177.553**	**38**	**6.747**	**-**	**-**	**-**	**177.553**	**38**	**6.747**

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Army	Quantity	-	-	28	-	28
	Total Obligation Authority	-	-	5.000	-	5.000

Exhibit P-5, Cost Analysis: PB 2019 Army		Date: February 2018
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:**

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
ANG	Quantity	42	20	10	-	10
	Total Obligation Authority	4.901	3.483	1.747	-	1.747
AR	Quantity	18	5	-	-	-
	Total Obligation Authority	2.267	0.871	-	-	-
Total: Secondary Distribution	**Quantity**	**60**	**25**	**38**	**-**	**38**
	Total Obligation Authority	**7.168**	**4.354**	**6.747**	**-**	**6.747**

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2019 Army		Date: February 2018
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	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
Urban Ops Platoon(†)		2016	FEDERAL RESOURCE / Stevensville	C / FFP	TACOM WARREN, MI	Oct 2015	Jan 2016	123	84.910			
Urban Ops Platoon(†)		2017	FEDERAL RESOURCE / Stevensville	C / FFP	TACOM Warren, MI	Oct 2016	Jan 2017	60	118.630			
Urban Ops Platoon(†)		2018	BEYOUND VISION / Milwaukee, WI	C / FFP	TACOM Warren, MI	Jan 2018	Jun 2018	25	141.800	Y		Mar 2017
Urban Ops Platoon(†)		2019	BEYOUND VISION / Milwaukee, WI	C / FFP	TACOM Warren, MI	Jan 2019	Jun 2019	38	146.080			

(†) indicates the presence of a P-21

Remarks:
FY19 is below MSR

Exhibit P-21, Production Schedule: PB 2019 Army		Date: February 2018
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 (Units in Each)							Fiscal Year 2016												Fiscal Year 2017												BALANCE
										Calendar Year 2016														Calendar Year 2017									
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2015	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
Urban Ops Platoon																															
Prior Years Deliveries: 237																															
	1	2016	ARMY	123	0	123	A -	-	-	10	10	10	10	10	10	10	10	10	11	11	11										0
	1	2017	ARMY	60	0	60													A -	-	-	5	5	5	5	5	5	5	5	5	15
	2	2018	ARMY	25	0	25																									25
	2	2019	ARMY	38	0	38																									38
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2019 Army		Date: February 2018
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 (Units in Each)							Fiscal Year 2018												Fiscal Year 2019												BALANCE
							Calendar Year 2018												Calendar Year 2019													
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2017	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
Urban Ops Platoon																															
Prior Years Deliveries: 237																															
	1	2016	ARMY	123	123	0																									0
	1	2017	ARMY	60	45	15	5	5	5																						0
	2	2018	ARMY	25	0	25				A	-	-	-	-	2	2	2	2	2	2	2	2	2	2	3						0
	2	2019	ARMY	38	0	38																A	-	-	-	-	9	9	10	10	0
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2019 Army		Date: February 2018
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

MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Month)			Procurement Leadtime (Months)							
					Initial				Reorder			
		MSR For 2019	1-8-5 For 2019	MAX For 2019	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	FEDERAL RESOURCE - Stevensville	4	15	25	0	1	3	4	0	1	3	4
2	BEYOUND VISION - Milwaukee, WI	4	15	25	6	4	12	16	0	1	3	4

"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).

Exhibit P-5, Cost Analysis: PB 2019 Army		Date: February 2018
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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Procurement Quantity *(Units in Each)*	371	102	7	22	-	22
Gross/Weapon System Cost *($ in Millions)*	52.517	7.689	0.567	1.680	-	1.680
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	52.517	7.689	0.567	1.680	-	1.680
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**52.517**	**7.689**	**0.567**	**1.680**	**-**	**1.680**
(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)*	141.555	75.382	81.000	76.364	-	76.364

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

Cost Elements	Prior Years			FY 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 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	-	-	-	-	-	-	-	-	0.149	-	-	0.170	-	-	-	-	-	0.170
Engineering Support	-	-	2.059	-	-	0.060	-	-	0.020	-	-	0.043	-	-	-	-	-	0.043
Quality Assurance Support	-	-	0.732	-	-	0.030	-	-	0.010	-	-	0.043	-	-	-	-	-	0.043
Urban Ops Squad(†)	77.887	604	47.044	70.951	102	7.237	48.143	7	0.337	54.273	22	1.194	-	-	-	54.273	22	1.194
System Fielding Support	-	-	2.682	-	-	0.362	-	-	0.051	-	-	0.230	-	-	-	-	-	0.230
Subtotal: Recurring Cost	-	-	*52.517*	-	-	*7.689*	-	-	*0.567*	-	-	*1.680*	-	-	-	-	-	*1.680*
Subtotal: Flyaway Cost	**-**	**-**	***52.517***	**-**	**-**	***7.689***	**-**	**-**	***0.567***	**-**	**-**	***1.680***	**-**	**-**	**-**	**-**	**-**	***1.680***
Gross/Weapon System Cost	**141.555**	**371**	**52.517**	**75.382**	**102**	**7.689**	**81.000**	**7**	**0.567**	**76.364**	**22**	**1.680**	**-**	**-**	**-**	**76.364**	**22**	**1.680**

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Army	Quantity	-	-	22	-	22
	Total Obligation Authority	-	-	1.680	-	1.680
ANG	Quantity	75	5	-	-	-
	Total Obligation Authority	5.629	0.405	-	-	-
AR	Quantity	27	2	-	-	-
	Total Obligation Authority	2.060	0.162	-	-	-

Exhibit P-5, Cost Analysis: PB 2019 Army		Date: February 2018
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:**

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Total: Secondary Distribution	Quantity	102	7	22	-	22
	Total Obligation Authority	7.689	0.567	1.680	-	1.680

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2019 Army		Date: February 2018
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	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
Urban Ops Squad		2016	FEDERAL RESOURCES / Stevensville, MD	C / FFP	TACOM WARREN, MI	Oct 2015	Dec 2015	69	137.710			
Urban Ops Squad		2017	FEDERAL RESOURCES / Stevensville, MD	C / FFP	TACOM, WARREN, MI	Oct 2016	Dec 2016	102	70.950			
Urban Ops Squad		2018	Beyond Vision / Milwaukee, WI	C / FFP	TACOM, WARREN, MI	Jan 2018	Jun 2018	7	48.140	Y		Mar 2017
Urban Ops Squad		2019	Beyond Vision / Milwaukee, WI	C / FFP	TACOM, Warren, MI	Jan 2019	Jun 2019	22	54.270			

Remarks:
FY19 is below MSR

Exhibit P-5, Cost Analysis: PB 2019 Army		Date: February 2018
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) :		**MDAP/MAIS Code:**

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Procurement Quantity *(Units in Each)*	-	36	47	38	-	38
Gross/Weapon System Cost *($ in Millions)*	-	0.977	1.412	1.066	-	1.066
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	-	0.977	1.412	1.066	-	1.066
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**-**	**0.977**	**1.412**	**1.066**	**-**	**1.066**
(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)*	-	27.139	30.043	28.053	-	28.053

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

Cost Elements	Prior Years			FY 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 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	-	-	-	-	-	0.033	-	-	0.517	-	-	0.107	-	-	-	-	-	0.107
Quality Assurance	-	-	-	-	-	0.003	-	-	-	-	-	0.004	-	-	-	-	-	0.004
Engineering	-	-	-	-	-	0.003	-	-	-	-	-	0.007	-	-	-	-	-	0.007
Subtotal: Recurring Cost	-	-	-	-	-	*0.039*	-	-	*0.517*	-	-	*0.118*	-	-	-	-	-	*0.118*
Subtotal: Flyaway Cost	**-**	**-**	**-**	**-**	**-**	***0.039***	**-**	**-**	***0.517***	**-**	**-**	***0.118***	**-**	**-**	**-**	**-**	**-**	***0.118***
Hardware Cost																		
Recurring Cost																		
Hardware	-	-	-	25.167	36	0.906	18.043	47	0.848	24.000	38	0.912	-	-	-	24.000	38	0.912
TPF	-	-	-	-	-	0.030	-	-	-	-	-	0.012	-	-	-	-	-	0.012
Transportation	-	-	-	-	-	0.002	-	-	0.047	0.632	38	0.024	-	-	-	0.632	38	0.024
Subtotal: Recurring Cost	-	-	-	-	-	*0.938*	-	-	*0.895*	-	-	*0.948*	-	-	-	-	-	*0.948*
Subtotal: Hardware Cost	**-**	**-**	**-**	**-**	**-**	***0.938***	**-**	**-**	***0.895***	**-**	**-**	***0.948***	**-**	**-**	**-**	**-**	**-**	***0.948***
Gross/Weapon System Cost	**-**	**-**	**-**	**27.139**	**36**	**0.977**	**30.043**	**47**	**1.412**	**28.053**	**38**	**1.066**	**-**	**-**	**-**	**28.053**	**38**	**1.066**

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Army	Quantity	14	47	-	-	-
	Total Obligation Authority	0.381	1.412	-	-	-

Exhibit P-5, Cost Analysis: PB 2019 Army		Date: February 2018
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) :		**MDAP/MAIS Code:**

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
ANG	Quantity	11	-	38	-	38
	Total Obligation Authority	0.298	-	1.066	-	1.066
AR	Quantity	11	-	-	-	-
	Total Obligation Authority	0.298	-	-	-	-
Total: Secondary Distribution	**Quantity**	**36**	**47**	**38**	**-**	**38**
	Total Obligation Authority	**0.977**	**1.412**	**1.066**	**-**	**1.066**

Exhibit P-5, Cost Analysis: PB 2019 Army		Date: February 2018
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) :		**MDAP/MAIS Code:**

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Procurement Quantity *(Units in Each)*	-	15	8	8	-	8
Gross/Weapon System Cost *($ in Millions)*	-	0.639	0.348	0.351	-	0.351
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	-	0.639	0.348	0.351	-	0.351
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**-**	**0.639**	**0.348**	**0.351**	**-**	**0.351**
(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)*	-	42.600	43.500	43.875	-	43.875

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

Cost Elements	Prior Years			FY 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 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	-	-	-	-	-	0.001	-	-	0.044	-	-	0.038	-	-	-	-	-	0.038
Engineering	-	-	-	-	-	0.005	-	-	-	-	-	0.007	-	-	-	-	-	0.007
Subtotal: Recurring Cost	-	-	-	-	-	*0.006*	-	-	*0.044*	-	-	*0.045*	-	-	-	-	-	*0.045*
Subtotal: Flyaway Cost	**-**	**-**	**-**	**-**	**-**	***0.006***	**-**	**-**	***0.044***	**-**	**-**	***0.045***	**-**	**-**	**-**	**-**	**-**	***0.045***
Hardware Cost																		
Recurring Cost																		
VSECK Type V(†)	-	-	-	41.133	15	0.617	37.000	8	0.296	33.750	8	0.270	-	-	-	33.750	8	0.270
TPF	-	-	-	-	-	0.010	-	-	-	-	-	0.012	-	-	-	-	-	0.012
Transportation	-	-	-	-	-	0.006	-	-	0.008	3.000	8	0.024	-	-	-	3.000	8	0.024
Subtotal: Recurring Cost	-	-	-	-	-	*0.633*	-	-	*0.304*	-	-	*0.306*	-	-	-	-	-	*0.306*
Subtotal: Hardware Cost	**-**	**-**	**-**	**-**	**-**	***0.633***	**-**	**-**	***0.304***	**-**	**-**	***0.306***	**-**	**-**	**-**	**-**	**-**	***0.306***
Gross/Weapon System Cost	**-**	**-**	**-**	**42.600**	**15**	**0.639**	**43.500**	**8**	**0.348**	**43.875**	**8**	**0.351**	**-**	**-**	**-**	**43.875**	**8**	**0.351**

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Army	Quantity	7	8	8	-	8
	Total Obligation Authority	0.249	0.348	0.351	-	0.351
ANG	Quantity	4	-	-	-	-

Exhibit P-5, Cost Analysis: PB 2019 Army		Date: February 2018
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) :		MDAP/MAIS Code:

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
	Total Obligation Authority	0.195	-	-	-	-
AR	Quantity	4	-	-	-	-
	Total Obligation Authority	0.195	-	-	-	-
Total: Secondary Distribution	**Quantity**	**15**	**8**	**8**	**-**	**8**
	Total Obligation Authority	**0.639**	**0.348**	**0.351**	**-**	**0.351**

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2019 Army		Date: February 2018
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	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
VSECK Type V		2017	I. B. Milwaukee / West Allis, WI 53214	SS / FFP	TACOM, Warren, MI	Jun 2017	Sep 2017	15	41.130			
VSECK Type V		2018	I. B. Milwaukee / West Allis, WI 53214	SS / FFP	TACOM, Warren, MI	Jul 2018	Sep 2018	8	37.000			
VSECK Type V		2019	I. B. Milwaukee / West Allis, WI 53214	SS / FFP	TACOM, Warren, MI	Jul 2019	Sep 2019	8	33.750			

Remarks:
Will not meet MSR

Exhibit P-5, Cost Analysis: PB 2019 Army		Date: February 2018
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) :		**MDAP/MAIS Code:**

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Procurement Quantity *(Units in Each)*	-	10	14	21	-	21
Gross/Weapon System Cost *($ in Millions)*	-	0.294	0.326	0.541	-	0.541
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	-	0.294	0.326	0.541	-	0.541
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**-**	**0.294**	**0.326**	**0.541**	**-**	**0.541**
(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)*	-	29.400	23.286	25.762	-	25.762

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

Cost Elements	Prior Years			FY 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 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	-	-	-	-	-	0.018	-	-	0.034	-	-	0.060	-	-	-	-	-	0.060
Quality Assurance	-	-	-	-	-	0.002	-	-	-	-	-	0.004	-	-	-	-	-	0.004
Engineering	-	-	-	-	-	0.003	-	-	-	-	-	0.007	-	-	-	-	-	0.007
Subtotal: Recurring Cost	-	-	-	-	-	*0.023*	-	-	*0.034*	-	-	*0.071*	-	-	-	-	-	*0.071*
Subtotal: Flyaway Cost	**-**	**-**	**-**	**-**	**-**	***0.023***	**-**	**-**	***0.034***	**-**	**-**	***0.071***	**-**	**-**	**-**	**-**	**-**	***0.071***
Hardware Cost																		
Recurring Cost																		
VSECK TYPE IV(†)	-	-	-	25.100	10	0.251	19.857	14	0.278	19.810	21	0.416	-	-	-	19.810	21	0.416
TPF	-	-	-	-	-	0.018	-	-	-	-	-	0.012	-	-	-	-	-	0.012
TRANSPORTATION	-	-	-	-	-	0.002	-	-	0.014	2.000	21	0.042	-	-	-	2.000	21	0.042
Subtotal: Recurring Cost	-	-	-	-	-	*0.271*	-	-	*0.292*	-	-	*0.470*	-	-	-	-	-	*0.470*
Subtotal: Hardware Cost	**-**	**-**	**-**	**-**	**-**	***0.271***	**-**	**-**	***0.292***	**-**	**-**	***0.470***	**-**	**-**	**-**	**-**	**-**	***0.470***
Gross/Weapon System Cost	**-**	**-**	**-**	**29.400**	**10**	**0.294**	**23.286**	**14**	**0.326**	**25.762**	**21**	**0.541**	**-**	**-**	**-**	**25.762**	**21**	**0.541**

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Army	Quantity	4	14	21	-	21
	Total Obligation Authority	0.116	0.326	0.541	-	0.541

Exhibit P-5, Cost Analysis: PB 2019 Army		Date: February 2018
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) :		**MDAP/MAIS Code:**

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
ANG	Quantity	3	-	-	-	-
	Total Obligation Authority	0.090	-	-	-	-
AR	Quantity	3	-	-	-	-
	Total Obligation Authority	0.088	-	-	-	-
Total: Secondary Distribution	**Quantity**	**10**	**14**	**21**	**-**	**21**
	Total Obligation Authority	**0.294**	**0.326**	**0.541**	**-**	**0.541**

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2019 Army		Date: February 2018
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	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
VSECK TYPE IV		2017	I. B. Milwaukee / West Allis, WI 53214	SS / FFP	TACOM, Warren, MI	Jun 2017	Sep 2017	10	25.100			
VSECK TYPE IV		2018	I. B. Milwaukee / West Allis, WI 53214	SS / FFP	TACOM, Warren, MI	Jun 2018	Sep 2018	14	19.860			
VSECK TYPE IV		2019	I. B. Milwaukee / West Allis, WI 53214	SS / FFP	TACOM, Warren, MI	Jun 2019	Sep 2019	21	19.810			

Remarks:
Will not meet MSR

Exhibit P-5, Cost Analysis: PB 2019 Army		Date: February 2018
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) :		**MDAP/MAIS Code:**

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Procurement Quantity *(Units in Each)*	-	15	9	10	-	10
Gross/Weapon System Cost *($ in Millions)*	-	0.473	0.338	0.341	-	0.341
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	-	0.473	0.338	0.341	-	0.341
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**-**	**0.473**	**0.338**	**0.341**	**-**	**0.341**
(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)*	-	31.533	37.556	34.100	-	34.100

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

Cost Elements	Prior Years			FY 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 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	-	-	-	-	-	0.006	-	-	0.038	-	-	0.035	-	-	-	-	-	0.035
Quality Assurance	-	-	-	-	-	0.002	-	-	-	-	-	0.004	-	-	-	-	-	0.004
Engineering	-	-	-	-	-	0.003	-	-	-	-	-	0.007	-	-	-	-	-	0.007
Subtotal: Recurring Cost	-	-	-	-	-	*0.011*	-	-	*0.038*	-	-	*0.046*	-	-	-	-	-	*0.046*
Subtotal: Flyaway Cost	**-**	**-**	**-**	**-**	**-**	***0.011***	**-**	**-**	***0.038***	**-**	**-**	***0.046***	**-**	**-**	**-**	**-**	**-**	***0.046***
Hardware Cost																		
Recurring Cost																		
VSECK Type III(†)	-	-	-	30.400	15	0.456	29.100	10	0.291	26.300	10	0.263	-	-	-	26.300	10	0.263
TPF	-	-	-	-	-	0.004	-	-	-	-	-	0.012	-	-	-	-	-	0.012
Transportation	-	-	-	-	-	0.002	1.000	9	0.009	2.000	10	0.020	-	-	-	2.000	10	0.020
Subtotal: Recurring Cost	-	-	-	-	-	*0.462*	-	-	*0.300*	-	-	*0.295*	-	-	-	-	-	*0.295*
Subtotal: Hardware Cost	**-**	**-**	**-**	**-**	**-**	***0.462***	**-**	**-**	***0.300***	**-**	**-**	***0.295***	**-**	**-**	**-**	**-**	**-**	***0.295***
Gross/Weapon System Cost	**-**	**-**	**-**	**31.533**	**15**	**0.473**	**37.556**	**9**	**0.338**	**34.100**	**10**	**0.341**	**-**	**-**	**-**	**34.100**	**10**	**0.341**

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Army	Quantity	7	9	10	-	10
	Total Obligation Authority	0.185	0.338	0.341	-	0.341

Exhibit P-5, Cost Analysis: PB 2019 Army		Date: February 2018
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) :		**MDAP/MAIS Code:**

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
ANG	Quantity	4	-	-	-	-
	Total Obligation Authority	0.144	-	-	-	-
AR	Quantity	4	-	-	-	-
	Total Obligation Authority	0.144	-	-	-	-
Total: Secondary Distribution	**Quantity**	**15**	**9**	**10**	**-**	**10**
	Total Obligation Authority	**0.473**	**0.338**	**0.341**	**-**	**0.341**

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2019 Army		Date: February 2018
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	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
VSECK Type III		2017	I. B. Milwaukee / West Allis, WI 53214	SS / FFP	TACOM, Warren, MI	Jun 2017	Sep 2017	15	30.400			
VSECK Type III		2018	I. B. Milwaukee / West Allis, WI 53214	SS / FFP	TACOM, Warren, MI	Jun 2018	Sep 2018	10	29.100			
VSECK Type III		2019	I. B. Milwaukee / West Allis, WI 53214	SS / FFP	TACOM, Warren, MI	Jun 2019	Sep 2019	10	26.300			

Remarks:
Will not meet MSR

Exhibit P-5, Cost Analysis: PB 2019 Army		Date: February 2018
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) :		**MDAP/MAIS Code:**

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Procurement Quantity *(Units in Each)*	-	14	16	32	-	32
Gross/Weapon System Cost *($ in Millions)*	-	0.350	0.321	0.779	-	0.779
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	-	0.350	0.321	0.779	-	0.779
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**-**	**0.350**	**0.321**	**0.779**	**-**	**0.779**
(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	20.063	24.344	-	24.344

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

Cost Elements	Prior Years			FY 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 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	-	-	-	-	-	0.018	-	-	0.026	-	-	0.080	-	-	-	-	-	0.080
Quality Assurance	-	-	-	-	-	0.002	-	-	-	-	-	0.004	-	-	-	-	-	0.004
Engineering	-	-	-	-	-	0.003	-	-	-	-	-	0.007	-	-	-	-	-	0.007
Subtotal: Recurring Cost	-	-	-	-	-	*0.023*	-	-	*0.026*	-	-	*0.091*	-	-	-	-	-	*0.091*
Subtotal: Flyaway Cost	**-**	**-**	**-**	**-**	**-**	***0.023***	**-**	**-**	***0.026***	**-**	**-**	***0.091***	**-**	**-**	**-**	**-**	**-**	***0.091***
Hardware Cost																		
Recurring Cost																		
VSECK TYPE II(†)	-	-	-	20.214	14	0.283	17.438	16	0.279	19.313	32	0.618	-	-	-	19.313	32	0.618
TPF	-	-	-	-	-	0.042	-	-	-	-	-	0.012	-	-	-	-	-	0.012
Transportation	-	-	-	-	-	0.002	-	-	0.016	1.813	32	0.058	-	-	-	1.813	32	0.058
Subtotal: Recurring Cost	-	-	-	-	-	*0.327*	-	-	*0.295*	-	-	*0.688*	-	-	-	-	-	*0.688*
Subtotal: Hardware Cost	**-**	**-**	**-**	**-**	**-**	***0.327***	**-**	**-**	***0.295***	**-**	**-**	***0.688***	**-**	**-**	**-**	**-**	**-**	***0.688***
Gross/Weapon System Cost	**-**	**-**	**-**	**25.000**	**14**	**0.350**	**20.063**	**16**	**0.321**	**24.344**	**32**	**0.779**	**-**	**-**	**-**	**24.344**	**32**	**0.779**

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Army	Quantity	6	16	32	-	32
	Total Obligation Authority	0.136	0.321	0.779	-	0.779

Exhibit P-5, Cost Analysis: PB 2019 Army		Date: February 2018
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) :		**MDAP/MAIS Code:**

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
ANG	Quantity	4	-	-	-	-
	Total Obligation Authority	0.107	-	-	-	-
AR	Quantity	4	-	-	-	-
	Total Obligation Authority	0.107	-	-	-	-
Total: Secondary Distribution	**Quantity**	**14**	**16**	**32**	**-**	**32**
	Total Obligation Authority	**0.350**	**0.321**	**0.779**	**-**	**0.779**

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2019 Army		Date: February 2018
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	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
VSECK TYPE II		2017	I. B. Milwaukee / West Allis, WI 53214	SS / FFP	TACOM, Warren, MI	Jun 2017	Sep 2017	14	20.210			
VSECK TYPE II		2018	I. B. Milwaukee / West Allis, WI 53214	SS / FFP	TACOM, Warren, MI	Jun 2018	Sep 2018	16	17.440			
VSECK TYPE II		2019	I. B. Milwaukee / West Allis, WI 53214	SS / FFP	TACOM, Warren, MI	Jun 2019	Sep 2019	32	19.310			

Remarks:
Will not meet MSR

Exhibit P-5, Cost Analysis: PB 2019 Army		Date: February 2018
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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Procurement Quantity *(Units in Each)*	-	26	22	22	-	22
Gross/Weapon System Cost *($ in Millions)*	-	0.288	0.208	0.294	-	0.294
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	-	0.288	0.208	0.294	-	0.294
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**-**	**0.288**	**0.208**	**0.294**	**-**	**0.294**
(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)*	-	11.077	9.455	13.364	-	13.364

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

Cost Elements	Prior Years			FY 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 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	-	-	-	-	-	-	-	-	0.017	-	-	0.029	-	-	-	-	-	0.029
Quality Assurance	-	-	-	-	-	-	-	-	-	-	-	0.004	-	-	-	-	-	0.004
Engineering	-	-	-	-	-	-	-	-	-	-	-	0.007	-	-	-	-	-	0.007
Subtotal: Recurring Cost	-	-	-	-	-	-	-	-	*0.017*	-	-	*0.040*	-	-	-	-	-	*0.040*
Subtotal: Flyaway Cost	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***0.017***	**-**	**-**	***0.040***	**-**	**-**	**-**	**-**	**-**	***0.040***
Hardware Cost																		
Recurring Cost																		
VSECK Type I(†)	-	-	-	11.000	26	0.286	7.682	22	0.169	10.000	22	0.220	-	-	-	10.000	22	0.220
TPF	-	-	-	-	-	-	-	-	-	-	-	0.012	-	-	-	-	-	0.012
Transportation	-	-	-	-	-	0.002	-	-	0.022	1.000	22	0.022	-	-	-	1.000	22	0.022
Subtotal: Recurring Cost	-	-	-	-	-	*0.288*	-	-	*0.191*	-	-	*0.254*	-	-	-	-	-	*0.254*
Subtotal: Hardware Cost	**-**	**-**	**-**	**-**	**-**	***0.288***	**-**	**-**	***0.191***	**-**	**-**	***0.254***	**-**	**-**	**-**	**-**	**-**	***0.254***
Gross/Weapon System Cost	**-**	**-**	**-**	**11.077**	**26**	**0.288**	**9.455**	**22**	**0.208**	**13.364**	**22**	**0.294**	**-**	**-**	**-**	**13.364**	**22**	**0.294**

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Army	Quantity	10	16	22	-	22
	Total Obligation Authority	0.114	0.151	0.294	-	0.294

Exhibit P-5, Cost Analysis: PB 2019 Army		Date: February 2018
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:**

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
ANG	Quantity	8	-	-	-	-
	Total Obligation Authority	0.087	-	-	-	-
AR	Quantity	8	6	-	-	-
	Total Obligation Authority	0.087	0.057	-	-	-
Total: Secondary Distribution	**Quantity**	**26**	**22**	**22**	**-**	**22**
	Total Obligation Authority	**0.288**	**0.208**	**0.294**	**-**	**0.294**

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2019 Army		Date: February 2018
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	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
VSECK Type I		2017	I. B. Milwaukee / West Allis, WI 53214	SS / FFP	TACOM, Warren, MI	Jun 2017	Sep 2018	26	11.000			
VSECK Type I		2018	I. B. Milwaukee / West Allis, WI 53214	SS / FFP	TACOM, Warren, MI	Jun 2018	Sep 2018	22	7.680			
VSECK Type I		2019	I. B. Milwaukee / West Allis, WI 53214	SS / FFP	TACOM, Warren, MI	Jun 2019	Sep 2019	22	10.000			

Remarks:
Will not meet MSR

Exhibit P-40, Budget Line Item Justification: PB 2019 Army	Date: February 2018
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):	**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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	523	20	-	-	-	-	-	-	-	-	-	543
Gross/Weapon System Cost *($ in Millions)*	220.377	0.300	-	2.000	-	2.000	-	-	-	-	-	222.677
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	220.377	0.300	-	2.000	-	2.000	-	-	-	-	-	222.677
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**220.377**	**0.300**	**-**	**2.000**	**-**	**2.000**	**-**	**-**	**-**	**-**	**-**	**222.677**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost *($ in Thousands)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Thousands)*	421.371	15.000	-	-	-	-	-	-	-	-	-	410.087

Description:

Underwater Construction Set (UCS): The Underwater Construction Set (UCS) provides the MOS 12D Diver the tools and equipment required to support all Engineer Diving operations and will reduce the footprint of the legacy set from five individual containers (QUADCON) to four. The UCS includes the following packages: Salvage package used for lifting heavy debris and recovering objects up to 160,000 pounds; Cutting and welding package used for underwater and surface operations; Reconnaissance package with increased capability using Instrument Set, Reconnaissance and Surveying (ENFIRE); Hydraulic tool package used for construction/debris removal and cutting concrete, wood, and metal; and Hand tools and hardware package for surface construction and support tools. Army Acquisition Objective (AAO) for UCS is 5.

Firefighting Protection Equipment (FPE): The Firefighter Protection Equipment (FPE) is a superior firefighting capability used in critical life and equipment saving situations due to Improvised Explosive Devices (IED) and battle damage. FPE is employed by soldiers as an immediate means to combat vehicle convoy fires and conduct rescue operations to extract trapped and injured soldiers from burning and damaged vehicles. FPE suppresses fires faster which will minimize fire damage and loss of equipment. The FPE set has been given a Joint Designator to support the Army as well as other services. FPE consists three types: Type 1 is a Soldier-portable firefighting set; Type 2 is a skid mounted system, with dual side rails to enhance mobility, capable of being used as a ground or vehicle mounted set; Type 3 is a larger set capable of being mounted as a secondary load to army vehicles or trailers. All three types of FPE provide a superior fire suppression capability for convoy operations in all combat, garrison operations and in all terrain and conditions. FPE equipment supports mounted and dismounted soldiers by increasing firefighting suppression capability at the immediate point of need. Army Acquisition Objective (AAO) is: Type I 9301, Type II 2048, Type III 543.

Firefighter Individual Requirements Equipment Set (FIRES): The Firefighter Individual Requirements Equipment Set (FIRES) is an assembly of standardized critical life saving fire fighting suits and equipment consisting of a Structural, Aircraft and Wildland fire fighting set to support the MOS 12M Army and Department of Defense (DoD) Firefighters. The FIRES equipment provides the Soldier/DoD Firefighter with the capability to safely conduct life, equipment and property saving fire fighting missions in all terrain, conditions, combat operations, garrison environments and disaster relief support. The FIRES has the deployability, transportability, versatility and functionality to support early entry expeditionary forces, counter- IED operations, and battle damaged equipment recovery. FIRES provides rapid fire fighting capability to commanders at Combat Operating Bases (COB), Forward Operating Bases (FOB) Camp/Station to support all military and sustainment operations. Army Acquisition Objective (AAO) for FIRES is 868.

Family of High Pressure Breathing Air Compressors (FoHPBAC): The Family of High Pressure Breathing Air Compressors (FoHPBAC) will provide pure breathing air in support of the Self Contained Underwater Breathing Apparatus (SCUBA), Surface Supplied Diving operations, Fire Fighting Missions, and Chemical operations. This set will serve to replace and modernize current equipment and provide current and safe technology for these critical life support systems and supports the following MOS: Engineer Diver (12D), Special Forces Diver (18 series), Rangers combat diver, and 21M Fire Fighters. The FoHPBAC is

Exhibit P-40, Budget Line Item Justification: PB 2019 Army	Date: February 2018
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):	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A

Line Item MDAP/MAIS Code: N/A

100% commercial off the shelf and will consist of three different compressor variants: Type I 26 Cubic Feet per Minute (CFM), 5000 Pounds per Square Inch (PSI) compressor; Type II Diving 6.0 CFM 5000 PSI compressor; and Type II Fire 6.0 CFM 5000 PSI CFM 5000 PSI compressor with blast cabinet. Army Acquisition Objective (AAO) for FoHPBAC; Type I 12, Type II Diving 40, and Type II Fire 118.

Family of Boats & Motors (FoBaM): The Family Boats and Motors (FoBaM) will replace current outdated legacy systems and support both engineer and special forces 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 will consist of a 3-Person Pneumatic Combat Reconnaissance Craft(P-CRC), 7-Person Inflatable Combat Raiding Craft (I-CRC), 15-Person Inflatable Combat Assault Craft (I-CAC), I-CRC Submersible Outboard Motor, I-CAC Submersible Outboard Motor, and a Rigid Inflatable Combat Support Craft (RI-CSC). Army Acquisition Objective (AAO) for FoBaM is: 7-person I-CRC 922, 15-person I-CAC 528, I-CRC Outboard Motor 922, I-CAC Outboard Motor 528, and RI-CSC 29. In FY16, funds in this program are realigned to Family of Boats and Motors, SSN R12001 for more efficient,effective program management.

Deep Sea Set (DSS): The Deep Sea Set provides diver-worn critical life support and safety related equipment required to conduct surface supplied diving operations in accordance with all commercial and military safety standards. It includes a full helmet diving assembly that provides air, and protection from pollution, falling debris, and other hazards. It allows for communications with the surface in a dry environment, and is required equipment for construction, cutting and welding, and salvage operations. The set also includes an umbilical assembly that supplies breathing air, depth monitoring and a communications/strength member capable of supporting the diver's weight. The communications assembly allows three divers and the diving supervisor to communicate. The set can be used to a depth of 250 feet and is the only system that protects the diver while conducting heavy construction and salvage operations. Army Acquisition Objective (AAO) for DSS is 6. In FY16, funds for this program are realigned to Family of Diver Support Equipment, SSN R07005 for more efficient, effective program management.

Diving Equipment: The critical life support and safety related sets include Underwater Construction Set; Underwater Photo Set; Supervisor, Propulsion, Emergency and Recovery Set (SPEARS) Set; Surface Swimmer Support Set; Individual Swimmer Support Set; Deep Sea Set; and Closed & Open Circuit Set. Engineer divers support Corps/Theater level operations as a force multiplier by performing current diving missions in South West Asia to include debris removal, bridge construction, salvage operations, underwater mine and explosive detection, and personnel recovery operations. Special operations dive teams use the sets for clandestine combat waterborne infiltration/ex-filtration and to aid in search and recovery operations.

Pioneer Land Clearing and Building Erection Set: Provides safety equipment for working above ground and for chain saw operation. The set is configured with individual hand and pioneer tools to enable engineer squads to perform individual and collective tasks in a timely manner, such as construction of field fortifications and protective shelters; construction operations in restricted terrain, construction of individual Soldier and critical asset survivability positions; obstacle emplacement and obstacle marking.
Army Acquisition Objective (AAO) for Pioneer Land Clearing and Building Erection set is 805.

Vertical Skills Engineer Construction Kit (VSECK): The VSECK effort combines eight existing sets into a family of six systems which include hand and power tools used by carpenters, plumbers, pipefitters, electricians, and concrete & masonry craftsmen. VSECK systems leverage the latest in technological advances to support tactical missions providing means for security, stability, transition and reconstruction across Unified Land Operations. The family of VSECK enables Soldiers to efficiently respond to catastrophic events requiring humanitarian aid by enabling civil authority and shaping recovery efforts. Army Acquisition Objective (AAO) for VSECK is: Type 1 - Carpenters Tool Kit Squad (CTKS) 5,517; Type II - Carpenters Supplemental Tool Kit (CSTK) 830; Type III - Carpenters Tool Kit (CTK) 314; Type IV - Electricians Tool Kit (ETK) 928; Type V - Mason & Concrete Tool Kit (MCTK) 892; Type VI - Plumbers & Pipefitters Tool Kit (PPTK) 898.
In FY17, VSECK will move to Engineer Combat and Construction Sets (ECACS), SSN R70001 for more efficient, effective program management.

Funding will be provided to ERDEC to support the purchase of Fiber Reinforced Polymer matting kits for the airfield damage repair mission to meet force requirements as directed by HQDA G-8. Approximately 30 kits by HQDA G-8. Approximately 30 kits

This buys a variety of critical life support equipment such as; diving equipment, fire suppression sets, and soldier portable Engineer kits.

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023
Army	Quantity	20	-	0	-	0	-	-	-	-

Exhibit P-40, Budget Line Item Justification: PB 2019 Army	Date: February 2018
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):	**Program Elements for Code B Items:** N/A
Other Related Program Elements: N/A	
Line Item MDAP/MAIS Code: N/A	

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023
	Total Obligation Authority	0.300	-	2.000	-	2.000	-	-	-	-
Total: Secondary Distribution	**Quantity**	**20**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
	Total Obligation Authority	**0.300**	**-**	**2.000**	**-**	**2.000**	**-**	**-**	**-**	**-**

Justification:
Funding will be provided to (Engineer Research and Development Center) ERDEC to support the purchase of Fiber Reinforced Polymer matting kits for the airfield damage repair mission to meet force requirements.

Exhibit P-40, Budget Line Item Justification: PB 2019 Army	Date: February 2018
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:** 0725MB6400 / QUALITY SURVEILLANCE 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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	4	5	5	1	-	1	-	-	-	-	-	15
Gross/Weapon System Cost *($ in Millions)*	134.755	8.207	6.903	1.770	-	1.770	-	-	-	-	-	151.635
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	134.755	8.207	6.903	1.770	-	1.770	-	-	-	-	-	151.635
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**134.755**	**8.207**	**6.903**	**1.770**	**-**	**1.770**	**-**	**-**	**-**	**-**	**-**	**151.635**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost *($ in Thousands)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Thousands)*	33,688.750	1,641.400	1,380.600	1,770.000	-	1,770.000	-	-	-	-	-	10,109.000

Description:

Quality Surveillance Equipment is a family of petroleum and water laboratories used to evaluate the quality of military fuels and palatable water for our soldiers.

The Petroleum Quality Analysis System Enhanced (PQAS-E) is a fully integrated fuel laboratory installed in an environmentally controlled International Organization for Standardization (ISO) style shelter mounted on a trailer with support equipment, supplies, and a tent. The mission of the PQAS-E consists of testing fuels received through normal supply channels, locally procured from civil sources, and captured enemy stocks. The PQAS-E is employed as the Army's single petroleum laboratory capable of performing all levels of quality surveillance tests throughout each echelon on the battlefield. The PQAS-E is capable of modified B-2 level testing In Accordance With (IAW) Military Standard (MIL-STD) 3004 on kerosene based (e.g. Jet Propellant [JP] 5, JP-8, Jet A, Jet A-1) and diesel military mobility fuels. The shelter contains fuel test equipment (Automated Instrumentation System [AIS]), support equipment and supplies, an Environmental Control Unit (ECU), and an Auxiliary Power Unit (APU). System software provides an information database/expert system for the technician to consult in the interpretation of test results and in making recommendations for the disposition of fuels. The automated data acquisition features allow test data from instrumentation to be sent directly to the system software, which reduces data transcription errors and eliminates the need for hard-copy laboratory notebooks. The PQAS-E system is being built at Rock Island Arsenal.

The Army Acquisition Objective (AAO) is 83 PQAS-E systems.

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023
Army	Quantity	4	2	1	-	1	-	-	-	-
	Total Obligation Authority	5.936	2.709	1.770	-	1.770	-	-	-	-
ANG	Quantity	1	3	-	-	-	-	-	-	-
	Total Obligation Authority	2.271	4.194	-	-	-	-	-	-	-
Total: Secondary Distribution	**Quantity**	**5**	**5**	**1**	**-**	**1**	**-**	**-**	**-**	**-**
	Total Obligation Authority	**8.207**	**6.903**	**1.770**	**-**	**1.770**	**-**	**-**	**-**	**-**

Exhibit P-40, Budget Line Item Justification: PB 2019 Army		Date: February 2018
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:** 0725MB6400 / QUALITY SURVEILLANCE 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		

Justification:

There is no FY19 Base or OCO procurement funding request for this Program Element.

Petroleum Quality Analysis System Enhanced (PQAS-E) supports the Modular Brigades and enhances the Petroleum and Water Quartermaster (QM) War Fighting Capabilities. Quality surveillance of bulk fuel is critical to aviation and ground mobility equipment. The PQAS-E gives bulk petroleum quality surveillance capability down to brigade level in a flexible, responsive, mobile lab mounted on a 5-ton trailer. The PQAS-E is required for conducting quality tests on kerosene based and diesel fuels thus ensuring quality surveillance on the battlefield. This will help assure U.S. Armed Ground Forces' strategic responsiveness and its global force projection. The fuels that we put in our warfighting platforms must meet purity standards or it can cause equipment to be non-mission capable.

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.

Exhibit P-40, Budget Line Item Justification: PB 2019 Army	Date: February 2018
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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	911	576	458	293	-	293	377	362	474	410	-	3,861
Gross/Weapon System Cost *($ in Millions)*	875.738	113.896	47.597	39.730	-	39.730	44.631	42.570	34.655	29.374	-	1,228.191
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	875.738	113.896	47.597	39.730	-	39.730	44.631	42.570	34.655	29.374	-	1,228.191
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**875.738**	**113.896**	**47.597**	**39.730**	**-**	**39.730**	**44.631**	**42.570**	**34.655**	**29.374**	**-**	**1,228.191**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost *($ in Thousands)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Thousands)*	961.293	197.736	103.924	135.597	-	135.597	118.385	117.597	73.112	71.644	-	318.102

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 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 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. Seven MFS-TRMs and one Pump Rack (PRM) Module form the full Modular Fuel System, which 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 Army Acquisition Objective (AAO) is 3,340 TRMs.

The Modular Fuel System (MFS) Pump Rack Module (PRM) is fuel pumping capability for use with Tank Rack Modules (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 full MFS consists of one PRM and seven TRMs. The Army Acquisition Objective (AAO) is 25 PRMs.

The Load Handling System (LHS) Compatible Water Tank Racks System (Hippo) is a 2000 gallon potable water tank. It is configured in a 20 foot 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 Hippo can distribute to multiple locations or be placed on the ground/ off-loaded to establish a water supply point. 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. Hippos will replace the Semi-trailer Mounted Fabric Tank (SMFT) and most Forward Area Water Point Supply Systems (FAWPSS). The Army Acquisition Objective (AAO) is 2,911 Hippo systems.

The Expeditionary Water Packaging System (EWPS) is a completely containerized fully automated water packaging system that fills and caps one-liter bottles with potable water for individual Soldier consumption. The EWPS features end-to-end automated production (e.g. loading pre-forms, stretch blow molding of pre-forms into bottles, filling, capping, and labeling) within a closed, hygienic environment. It is capable of filling, at a minimum, 900 one-liter plastic bottles per hour. The EWPS is powered by multiple sources to include standard military or commercial generator sets. The finished bottles are palletized for shipment. The EWPS provides the following three main benefits: (1) reduces distribution footprint for bottled water and causalities associated with line haul distribution; (2) provides inherent safety and health

Exhibit P-40, Budget Line Item Justification: PB 2019 Army	Date: February 2018
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

benefits over bulk systems through reduction of Soldier contamination at bulk system fill points; (3) minimizes the cost associated with procuring and transporting bottled water. The Army Acquisition Objective (AAO) is 30 EWPS systems.

The 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 Army Acquisition Objective (AAO) is 488 CAMEL IIs.

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 Heavy Expanded Mobility Tactical Truck (HEMTT) Load Handling System (LHS), Palletized Load System (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 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 Army Acquisition Objective (AAO) is 12 (5 mile sets).

The Mobile Tactical Retail Refueling System (MTRRS) provides retail fuel distribution for echelons above brigade organizations. It consists of a 1050 gallon tank, pump, and filter/separator mounted in a rack that is Family of Medium Tactical Vehicles (FMTV) transportable. The MTRRS can be operated while on the truck or on the ground. It will replace the aging Tank and Pump Unit (TPU) and the Tank Unit Liquid Dispensing (TULD) systems. The Army Acquisition Objective (AAO) is 2,464.

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 Army Acquisition Objective (AAO): FSSP 120K is 178 systems, FSSP 300K is 219 systems, and FSSP 800K is 58 systems.

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023
Army	Quantity	334	233	229	-	229	176	182	353	324
	Total Obligation Authority	94.412	28.732	33.845	-	33.845	29.401	30.426	24.651	22.118
ANG	Quantity	198	166	54	-	54	145	123	121	86
	Total Obligation Authority	14.798	12.988	5.105	-	5.105	11.950	8.705	10.004	7.256
AR	Quantity	44	59	10	-	10	56	57	-	-
	Total Obligation Authority	4.686	5.877	0.780	-	0.780	3.280	3.439	-	-
Total: Secondary Distribution	**Quantity**	**576**	**458**	**293**	**-**	**293**	**377**	**362**	**474**	**410**
	Total Obligation Authority	**113.896**	**47.597**	**39.730**	**-**	**39.730**	**44.631**	**42.570**	**34.655**	**29.374**

Exhibit P-40, Budget Line Item Justification: PB 2019 Army	Date: February 2018
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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 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	M60300 / FUEL SYSTEM SUPPLY POINT	P-5a	A		- / 322.548	- / 60.120	- / -	2 / 1.770	- / -	2 / 1.770
P-5	R02600 / Modular Fuel System (MFS)	P-5a, P-21	A		671 / 207.415	349 / 20.151	197 / 11.610	160 / 12.486	- / -	160 / 12.486
P-5	R02670 / EXPEDITIONARY WATER PACKAGING SYSTEM (EWPS)		A		2 / 4.616	2 / 2.995	2 / 3.116	- / -	- / -	- / -
P-5	R02690 / EARLY ENTRY FLUID DISTRIBUTION SYSTEM (E2FDS)	P-5a	B		- / -	1 / 0.626	1 / 5.706	1 / 4.852	- / -	1 / 4.852
P-5	R38000 / Mobile Tactical Refueling System	P-5a	B		- / 5.911	10 / 1.386	58 / 4.082	10 / 6.864	- / -	10 / 6.864
P-5	R38100 / HIPPO WATER DISTRIBUTION SYSTEM	P-5a	A		235 / 250.193	148 / 22.268	159 / 18.181	41 / 5.342	- / -	41 / 5.342
P-5	R38101 / Unit Water Pod System (Camel)	P-5a, P-21	A		3 / 85.055	66 / 6.350	41 / 4.902	79 / 8.416	- / -	79 / 8.416
P-40	**Total Gross/Weapon System Cost**				**911 / 875.738**	**576 / 113.896**	**458 / 47.597**	**293 / 39.730**	**- / -**	**293 / 39.730**

*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:

FY19 Base funding in the amount of $39.730 million supports the procurement of the Modular Fuel System (MFS), Hippo Water Distribution Systems, Unit Water Pod System (CAMEL II), Mobile Tactical Refueling System (MTRRS), Early Entry Fluid Distribution System (E2FDS) and Fuel System Supply Point (FSSP). 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.

The FY 2019 funding request was reduced for $ 19.094 million to account for the availability of prior year execution balances.

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.

Exhibit P-5, Cost Analysis: PB 2019 Army		Date: February 2018
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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Procurement Quantity *(Units in Each)*	-	-	-	2	-	2
Gross/Weapon System Cost *($ in Millions)*	322.548	60.120	-	1.770	-	1.770
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	322.548	60.120	-	1.770	-	1.770
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**322.548**	**60.120**	**-**	**1.770**	**-**	**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)*	-	-	-	885.000	-	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 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 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(†)	-	-	138.600	891.000	63	56.133	-	-	-	885.000	2	1.770	-	-	-	885.000	2	1.770
FSSP 120K	-	-	97.700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
FSSP 800K	-	-	66.100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
System Engineering/ Program Management	-	-	14.648	-	-	3.487	-	-	-	-	-	-	-	-	-	-	-	-
Fielding	-	-	5.500	-	-	0.500	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Recurring Cost	-	-	*322.548*	-	-	*60.120*	-	-	-	-	-	*1.770*	-	-	-	-	-	*1.770*
Subtotal: Flyaway Cost	**-**	**-**	***322.548***	**-**	**-**	***60.120***	**-**	**-**	**-**	**-**	**-**	***1.770***	**-**	**-**	**-**	**-**	**-**	***1.770***
Gross/Weapon System Cost	**-**	**-**	**322.548**	**-**	**-**	**60.120**	**-**	**-**	**-**	**885.000**	**2**	**1.770**	**-**	**-**	**-**	**885.000**	**2**	**1.770**

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Army	Quantity	-	-	2	-	2
	Total Obligation Authority	60.120	-	1.770	-	1.770
Total: Secondary Distribution	**Quantity**	**-**	**-**	**2**	**-**	**2**
	Total Obligation Authority	**60.120**	**-**	**1.770**	**-**	**1.770**

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2019 Army		Date: February 2018
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

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
FSSP 300K		2017	Sierra Army Depot / Herlong	MIPR	TACOM	Jun 2017	Oct 2018	63	891.000	Y		
FSSP 300K		2019	Sierra Army Depot / Herlong	MIPR	TACOM	Jan 2019	Nov 2019	2	885.000	Y		

Exhibit P-5, Cost Analysis: PB 2019 Army		Date: February 2018
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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Procurement Quantity *(Units in Each)*	671	349	197	160	-	160
Gross/Weapon System Cost *($ in Millions)*	207.415	20.151	11.610	12.486	-	12.486
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	207.415	20.151	11.610	12.486	-	12.486
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**207.415**	**20.151**	**11.610**	**12.486**	**-**	**12.486**
(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)*	309.113	57.739	58.934	78.038	-	78.038

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

Cost Elements	Prior Years			FY 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 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(†)	-	-	-	588.000	1	0.588	-	-	-	-	-	-	-	-	-	-	-	-
Tank Rack Modules(†)	56.356	671	37.815	55.158	348	19.195	55.838	197	11.000	61.563	160	9.850	-	-	-	61.563	160	9.850
Engineering Changes	-	-	35.220	-	-	-	-	-	0.100	-	-	0.410	-	-	-	-	-	0.410
System Engineering/ Program Management	-	-	57.530	-	-	0.150	-	-	0.200	-	-	0.726	-	-	-	-	-	0.726
System Test & Evaluation, Production	-	-	36.950	-	-	-	-	-	0.020	-	-	0.250	-	-	-	-	-	0.250
Training	-	-	1.284	-	-	-	-	-	0.025	-	-	0.150	-	-	-	-	-	0.150
Data	-	-	2.806	-	-	-	-	-	0.025	-	-	0.150	-	-	-	-	-	0.150
Support Equipment	-	-	3.350	-	-	-	-	-	0.020	-	-	0.100	-	-	-	-	-	0.100
Fielding	-	-	32.460	-	-	0.218	-	-	0.220	-	-	0.850	-	-	-	-	-	0.850
Subtotal: Recurring Cost	-	-	*207.415*	-	-	*20.151*	-	-	*11.610*	-	-	*12.486*	-	-	-	-	-	*12.486*
Subtotal: Flyaway Cost	**-**	**-**	***207.415***	**-**	**-**	***20.151***	**-**	**-**	***11.610***	**-**	**-**	***12.486***	**-**	**-**	**-**	**-**	**-**	***12.486***
Gross/Weapon System Cost	**309.113**	**671**	**207.415**	**57.739**	**349**	**20.151**	**58.934**	**197**	**11.610**	**78.038**	**160**	**12.486**	**-**	**-**	**-**	**78.038**	**160**	**12.486**

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Army	Quantity	241	105	110	-	110
	Total Obligation Authority	13.905	6.199	8.584	-	8.584

Exhibit P-5, Cost Analysis: PB 2019 Army		Date: February 2018
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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
ANG	Quantity	108	92	40	-	40
	Total Obligation Authority	6.246	5.411	3.122	-	3.122
AR	Quantity	-	-	10	-	10
	Total Obligation Authority	-	-	0.780	-	0.780
Total: Secondary Distribution	**Quantity**	**349**	**197**	**160**	**-**	**160**
	Total Obligation Authority	**20.151**	**11.610**	**12.486**	**-**	**12.486**

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2019 Army		Date: February 2018
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	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
Pump Rack Modules		2017	DRS - PRM / St. Louis, MO	SS / FFP	TACOM	May 2018	Jul 2018	1	588.000	Y		
Tank Rack Modules(†)		2017	ISOMETRICS - TRM / Reidsville, NC	C / FFP	TACOM	Dec 2017	Jun 2018	348	55.160	N		
Tank Rack Modules(†)		2018	TBD / TBD	C / FFP	TACOM	Aug 2018	Feb 2019	197	55.840	N		
Tank Rack Modules(†)		2019	TBD / TBD	C / FFP	TACOM	Jan 2019	Jul 2019	160	61.560	N		

(†) indicates the presence of a P-21

Exhibit P-21, Production Schedule: PB 2019 Army		Date: February 2018
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 (Units in Each)							Fiscal Year 2018												Fiscal Year 2019											BALANCE
							Calendar Year 2018												Calendar Year 2019											
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2017	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
Tank Rack Modules																														
Prior Years Deliveries: 671																														
	1	2017	ARMY	348	0	348			A -	-	-	-	-	-	25	25	30	30	25	30	31	32	30	30	30	30					0
	2	2018	ARMY	197	0	197											A -	-	-	-	-	-	15	15	15	15	15	20	20	20	62
	2	2019	ARMY	160	0	160																A -	-	-	-	-	-	10	10	10	130
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2019 Army		Date: February 2018
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 (Units in Each)							Fiscal Year 2020												Fiscal Year 2021												BALANCE
							Calendar Year 2020												Calendar Year 2021													
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2019	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
Tank Rack Modules																															
Prior Years Deliveries: 671																															
	1	2017	ARMY	348	348	0																									0
	2	2018	ARMY	197	135	62	18	15	15	14																					0
	2	2019	ARMY	160	30	130	10	15	15	15	15	15	15	15	15																0
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2019 Army		Date: February 2018
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)							
					Initial				Reorder			
		MSR For 2019	1-8-5 For 2019	MAX For 2019	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	45	0	4	6	10	0	4	6	10
2	TBD - TBD	15	32	45	0	11	6	17	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).

Exhibit P-5, Cost Analysis: PB 2019 Army		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 30	**P-1 Line Item Number / Title:** 4700MA6000 / Distribution Systems, Petroleum & Water	**Item Number / Title [DODIC]:** R02670 / EXPEDITIONARY WATER PACKAGING SYSTEM (EWPS)
ID Code (A=Service Ready, B=Not Service Ready) : A		**MDAP/MAIS Code:**

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Procurement Quantity *(Units in Each)*	2	2	2	-	-	-
Gross/Weapon System Cost *($ in Millions)*	4.616	2.995	3.116	-	-	-
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	4.616	2.995	3.116	-	-	-
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**4.616**	**2.995**	**3.116**	**-**	**-**	**-**
(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)*	2,308.000	1,497.500	1,558.000	-	-	-

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

Cost Elements	Prior Years			FY 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 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 Recurring	1,400.000	2	2.800	1,400.000	2	2.800	1,420.000	2	2.840	-	-	-	-	-	-	-	-	-
System Engineering/ Program Management	-	-	0.650	-	-	0.100	-	-	0.150	-	-	-	-	-	-	-	-	-
Training	-	-	0.100	-	-	0.020	-	-	-	-	-	-	-	-	-	-	-	-
Data	-	-	0.175	-	-	0.005	-	-	-	-	-	-	-	-	-	-	-	-
Support Equipment	-	-	0.465	-	-	0.020	-	-	0.026	-	-	-	-	-	-	-	-	-
Fielding	-	-	0.426	-	-	0.050	-	-	0.100	-	-	-	-	-	-	-	-	-
Subtotal: Recurring Cost	-	-	*4.616*	-	-	*2.995*	-	-	*3.116*	-	-	-	-	-	-	-	-	-
Subtotal: Flyaway Cost	**-**	**-**	***4.616***	**-**	**-**	***2.995***	**-**	**-**	***3.116***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Gross/Weapon System Cost	**2,308.000**	**2**	**4.616**	**1,497.500**	**2**	**2.995**	**1,558.000**	**2**	**3.116**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Army	Quantity	2	2	-	-	-
	Total Obligation Authority	2.995	3.116	-	-	-
Total: Secondary Distribution	**Quantity**	**2**	**2**	**-**	**-**	**-**
	Total Obligation Authority	**2.995**	**3.116**	**-**	**-**	**-**

Exhibit P-5, Cost Analysis: PB 2019 Army		Date: February 2018
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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Procurement Quantity *(Units in Each)*	-	1	1	1	-	1
Gross/Weapon System Cost *($ in Millions)*	-	0.626	5.706	4.852	-	4.852
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	-	0.626	5.706	4.852	-	4.852
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**-**	**0.626**	**5.706**	**4.852**	**-**	**4.852**
(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)*	-	626.000	5,706.000	4,852.000	-	4,852.000

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

Cost Elements	Prior Years			FY 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 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(†)	-	-	-	626.000	1	0.626	2,950.000	1	2.950	2,950.000	1	2.950	-	-	-	2,950.000	1	2.950
Engineering Changes	-	-	-	-	-	-	-	-	0.500	-	-	0.200	-	-	-	-	-	0.200
System engineering/ Program management	-	-	-	-	-	-	-	-	0.956	-	-	0.968	-	-	-	-	-	0.968
System Test & Evaluation, Production	-	-	-	-	-	-	-	-	0.450	-	-	0.055	-	-	-	-	-	0.055
Training	-	-	-	-	-	-	-	-	0.200	-	-	0.200	-	-	-	-	-	0.200
Data	-	-	-	-	-	-	-	-	0.200	-	-	0.075	-	-	-	-	-	0.075
Support Equipment	-	-	-	-	-	-	-	-	0.200	-	-	0.154	-	-	-	-	-	0.154
Fielding	-	-	-	-	-	-	-	-	0.250	-	-	0.250	-	-	-	-	-	0.250
Subtotal: Recurring Cost	-	-	-	-	-	*0.626*	-	-	*5.706*	-	-	*4.852*	-	-	-	-	-	*4.852*
Subtotal: Flyaway Cost	**-**	**-**	**-**	**-**	**-**	***0.626***	**-**	**-**	***5.706***	**-**	**-**	***4.852***	**-**	**-**	**-**	**-**	**-**	***4.852***
Gross/Weapon System Cost	**-**	**-**	**-**	**626.000**	**1**	**0.626**	**5,706.000**	**1**	**5.706**	**4,852.000**	**1**	**4.852**	**-**	**-**	**-**	**4,852.000**	**1**	**4.852**

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Army	Quantity	1	1	1	-	1
	Total Obligation Authority	0.626	5.706	4.852	-	4.852
Total:	**Quantity**	**1**	**1**	**1**	**-**	**1**

Exhibit P-5, Cost Analysis: PB 2019 Army		Date: February 2018
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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Secondary Distribution	Total Obligation Authority	0.626	5.706	4.852	-	4.852

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2019 Army		Date: February 2018
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	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
E2FDS System		2018	DRS / White Plains, IL	C / FFP	TACOM	Aug 2019	Feb 2020	1	2,950.000	N		
E2FDS System		2019	DRS / White Plains, IL	C / FFP	TACOM	Aug 2019	Feb 2020	1	2,950.000	N		

Exhibit P-5, Cost Analysis: PB 2019 Army		Date: February 2018
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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Procurement Quantity *(Units in Each)*	-	10	58	10	-	10
Gross/Weapon System Cost *($ in Millions)*	5.911	1.386	4.082	6.864	-	6.864
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	5.911	1.386	4.082	6.864	-	6.864
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**5.911**	**1.386**	**4.082**	**6.864**	**-**	**6.864**
(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)*	-	138.600	70.379	686.400	-	686.400

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

Cost Elements	Prior Years			FY 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 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(†)	-	-	-	52.100	10	0.521	52.586	58	3.050	53.000	10	0.530	-	-	-	53.000	10	0.530
Engineering Changes (ECPs)	-	-	0.811	-	-	0.400	-	-	0.150	-	-	0.750	-	-	-	-	-	0.750
System Engineering/ Program Management	-	-	0.450	-	-	0.350	-	-	0.460	-	-	0.753	-	-	-	-	-	0.753
System Test & Evaluation, Production	-	-	0.500	-	-	0.070	-	-	0.060	-	-	1.550	-	-	-	-	-	1.550
Training	-	-	-	-	-	0.005	-	-	0.100	-	-	0.350	-	-	-	-	-	0.350
Data	-	-	4.000	-	-	0.005	-	-	-	-	-	1.431	-	-	-	-	-	1.431
Support Equipment	-	-	0.150	-	-	0.010	-	-	-	-	-	0.550	-	-	-	-	-	0.550
Fielding	-	-	-	-	-	0.025	-	-	0.262	-	-	0.950	-	-	-	-	-	0.950
Subtotal: Recurring Cost	-	-	*5.911*	-	-	*1.386*	-	-	*4.082*	-	-	*6.864*	-	-	-	-	-	*6.864*
Subtotal: Flyaway Cost	**-**	**-**	***5.911***	**-**	**-**	***1.386***	**-**	**-**	***4.082***	**-**	**-**	***6.864***	**-**	**-**	**-**	**-**	**-**	***6.864***
Gross/Weapon System Cost	**-**	**-**	**5.911**	**138.600**	**10**	**1.386**	**70.379**	**58**	**4.082**	**686.400**	**10**	**6.864**	**-**	**-**	**-**	**686.400**	**10**	**6.864**

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Army	Quantity	3	18	10	-	10

Exhibit P-5, Cost Analysis: PB 2019 Army		Date: February 2018
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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
	Total Obligation Authority	0.207	1.287	6.864	-	6.864
ANG	Quantity	4	21	-	-	-
	Total Obligation Authority	0.679	1.463	-	-	-
AR	Quantity	3	19	-	-	-
	Total Obligation Authority	0.500	1.332	-	-	-
Total: Secondary Distribution	**Quantity**	**10**	**58**	**10**	**-**	**10**
	Total Obligation Authority	**1.386**	**4.082**	**6.864**	**-**	**6.864**

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2019 Army		Date: February 2018
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	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
Mobile Tactical Refueling System		2018	TBD / TBD	C / FFP	TBD	Jun 2019	Oct 2019	58	52.590	N		
Mobile Tactical Refueling System		2019	TBD / TBD	C / FFP	TBD	Jun 2019	Oct 2019	10	53.000	N		

Exhibit P-5, Cost Analysis: PB 2019 Army		Date: February 2018
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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Procurement Quantity *(Units in Each)*	235	148	159	41	-	41
Gross/Weapon System Cost *($ in Millions)*	250.193	22.268	18.181	5.342	-	5.342
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	250.193	22.268	18.181	5.342	-	5.342
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**250.193**	**22.268**	**18.181**	**5.342**	**-**	**5.342**
(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)*	1,064.651	150.459	114.346	130.293	-	130.293

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

Cost Elements	Prior Years			FY 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 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(†)	585.957	235	137.700	101.351	148	15.000	101.132	159	16.080	101.220	41	4.150	-	-	-	101.220	41	4.150
Engineering Changes	-	-	12.650	-	-	1.550	-	-	0.325	-	-	0.150	-	-	-	-	-	0.150
System Engineering/ Program Management	-	-	50.500	-	-	1.118	-	-	0.250	-	-	0.242	-	-	-	-	-	0.242
System Test & Evaluation, Production	-	-	19.150	-	-	1.250	-	-	0.500	-	-	0.250	-	-	-	-	-	0.250
Training	-	-	0.950	-	-	0.450	-	-	0.250	-	-	0.050	-	-	-	-	-	0.050
Data	-	-	1.000	-	-	0.550	-	-	0.050	-	-	0.050	-	-	-	-	-	0.050
Support Equipment	-	-	12.953	-	-	0.850	-	-	0.150	-	-	0.050	-	-	-	-	-	0.050
Fielding	-	-	15.290	-	-	1.500	-	-	0.576	-	-	0.400	-	-	-	-	-	0.400
Subtotal: Recurring Cost	-	-	*250.193*	-	-	*22.268*	-	-	*18.181*	-	-	*5.342*	-	-	-	-	-	*5.342*
Subtotal: Flyaway Cost	**-**	**-**	***250.193***	**-**	**-**	***22.268***	**-**	**-**	***18.181***	**-**	**-**	***5.342***	**-**	**-**	**-**	**-**	**-**	***5.342***
Gross/Weapon System Cost	**1,064.651**	**235**	**250.193**	**150.459**	**148**	**22.268**	**114.346**	**159**	**18.181**	**130.293**	**41**	**5.342**	**-**	**-**	**-**	**130.293**	**41**	**5.342**

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Army	Quantity	49	87	41	-	41
	Total Obligation Authority	13.395	10.000	5.342	-	5.342
ANG	Quantity	58	32	-	-	-

Exhibit P-5, Cost Analysis: PB 2019 Army		Date: February 2018
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:**

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
	Total Obligation Authority	4.687	3.636	-	-	-
AR	Quantity	41	40	-	-	-
	Total Obligation Authority	4.186	4.545	-	-	-
Total: Secondary Distribution	**Quantity**	**148**	**159**	**41**	**-**	**41**
	Total Obligation Authority	**22.268**	**18.181**	**5.342**	**-**	**5.342**

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2019 Army		Date: February 2018
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	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
HIPPO		2017	TBD / TBD	C / FFP	TACOM	Feb 2018	Sep 2018	148	101.350	N		
HIPPO		2018	TBD / TBD	C / FFP	TACOM	Feb 2018	Sep 2018	159	101.130	N		
HIPPO		2019	TBD / TBD	C / FFP	TACOM	Aug 2019	Mar 2021	41	101.220	N		

Exhibit P-5, Cost Analysis: PB 2019 Army		Date: February 2018
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 (Camel)
ID Code (A=Service Ready, B=Not Service Ready) : A		**MDAP/MAIS Code:**

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Procurement Quantity *(Units in Each)*	3	66	41	79	-	79
Gross/Weapon System Cost *($ in Millions)*	85.055	6.350	4.902	8.416	-	8.416
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	85.055	6.350	4.902	8.416	-	8.416
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**85.055**	**6.350**	**4.902**	**8.416**	**-**	**8.416**
(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)*	28,351.667	96.212	119.561	106.532	-	106.532

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

Cost Elements	Prior Years			FY 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 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(†)	70.288	313	22.000	95.303	66	6.290	100.000	41	4.100	98.165	79	7.755	-	-	-	98.165	79	7.755
Engineering Changes	-	-	9.180	-	-	-	-	-	0.050	-	-	0.030	-	-	-	-	-	0.030
System Engineering/ Program Management	-	-	10.500	-	-	0.050	-	-	0.085	-	-	0.100	-	-	-	-	-	0.100
System Test & Evaluation, Production	-	-	9.150	-	-	0.010	-	-	0.025	-	-	0.056	-	-	-	-	-	0.056
Training	-	-	7.500	-	-	-	-	-	0.250	-	-	0.075	-	-	-	-	-	0.075
Data	-	-	9.550	-	-	-	-	-	0.050	-	-	0.050	-	-	-	-	-	0.050
Support Equipment	-	-	7.175	-	-	-	-	-	0.142	-	-	0.050	-	-	-	-	-	0.050
Fielding	-	-	10.000	-	-	-	-	-	0.200	-	-	0.300	-	-	-	-	-	0.300
Subtotal: Recurring Cost	-	-	*85.055*	-	-	*6.350*	-	-	*4.902*	-	-	*8.416*	-	-	-	-	-	*8.416*
Subtotal: Flyaway Cost	**-**	**-**	***85.055***	**-**	**-**	***6.350***	**-**	**-**	***4.902***	**-**	**-**	***8.416***	**-**	**-**	**-**	**-**	**-**	***8.416***
Gross/Weapon System Cost	**28,351.667**	**3**	**85.055**	**96.212**	**66**	**6.350**	**119.561**	**41**	**4.902**	**106.532**	**79**	**8.416**	**-**	**-**	**-**	**106.532**	**79**	**8.416**

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Army	Quantity	38	20	65	-	65
	Total Obligation Authority	3.164	2.424	6.433	-	6.433
ANG	Quantity	28	21	14	-	14

Exhibit P-5, Cost Analysis: PB 2019 Army		Date: February 2018
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 (Camel)
ID Code (A=Service Ready, B=Not Service Ready) : A		**MDAP/MAIS Code:**

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
	Total Obligation Authority	3.186	2.478	1.983	-	1.983
Total: Secondary Distribution	**Quantity**	**66**	**41**	**79**	**-**	**79**
	Total Obligation Authority	**6.350**	**4.902**	**8.416**	**-**	**8.416**

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2019 Army		Date: February 2018
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 (Camel)

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
Camel II(†)		2017	Choctaw Defense Manufacturing / McAlester, OK	SS / FFP	McAlester, Ok	Jun 2017	Apr 2018	66	95.300	Y		
Camel II(†)		2018	Choctaw Defense Manufacturing / McAlester, OK	SS / FFP	McAlester, OK	Jan 2018	Nov 2018	41	100.000	Y		
Camel II(†)		2019	Choctaw Defense Manufacturing / McAlester, OK	SS / FFP	McAlester, OK	Dec 2018	Oct 2019	79	98.170	Y		

(†) indicates the presence of a P-21

Exhibit P-21, Production Schedule: PB 2019 Army		Date: February 2018
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 (Camel)

Cost Elements (Units in Each)							Fiscal Year 2017												Fiscal Year 2018											BALANCE
										Calendar Year 2017														Calendar Year 2018								
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2016	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
Camel II																														
Prior Years Deliveries: 313																														
	1	2017	ARMY	66	0	66									A -	-	-	-	-	-	-	-	-	-	6	6	8	8	8	8	22
	1	2018	ARMY	41	0	41																A -	-	-	-	-	-	-	-	-	41
	1	2019	ARMY	79	0	79																									79
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2019 Army		Date: February 2018
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 (Camel)

Cost Elements (Units in Each)							Fiscal Year 2019												Fiscal Year 2020												BALANCE
							Calendar Year 2019																Calendar Year 2020									
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2018	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
Camel II																															
Prior Years Deliveries: 313																															
	1	2017	ARMY	66	44	22	8	8	6																						0
	1	2018	ARMY	41	0	41	-	2	3	6	6	6	6	6	6																0
	1	2019	ARMY	79	0	79			A -	-	-	-	-	-	-	-	-	-	10	10	10	10	10	10	10	9					0
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2019 Army		Date: February 2018
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 (Camel)

MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Month)			Procurement Leadtime (Months)							
					Initial				Reorder			
		MSR For 2019	1-8-5 For 2019	MAX For 2019	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	Choctaw Defense Manufacturing - McAlester, OK	6	10	16	0	9	10	19	0	3	10	13

"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).

Exhibit P-40, Budget Line Item Justification: PB 2019 Army	Date: February 2018
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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	3,566	5,484	1,573	2,282	1,031	3,313	1,628	1,828	3,016	3,456	-	23,864
Gross/Weapon System Cost *($ in Millions)*	871.058	75.524	69.033	57.752	17.527	75.279	30.496	35.727	37.072	33.513	-	1,227.702
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	871.058	75.524	69.033	57.752	17.527	75.279	30.496	35.727	37.072	33.513	-	1,227.702
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**871.058**	**75.524**	**69.033**	**57.752**	**17.527**	**75.279**	**30.496**	**35.727**	**37.072**	**33.513**	**-**	**1,227.702**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost *($ in Thousands)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Thousands)*	244.268	13.772	43.886	25.308	17.000	22.722	18.732	19.544	12.292	9.697	-	51.446

Description:

Combat Support Medical (CSM) represents the equipping component of a broad band of operational medical and health service support (hospitalization, combat stress, dental, veterinary, optical, and preventive medicine) capabilities that promote, improve, conserve, and restore the mental and physical well-being of Warfighters across the broad range of military operations. The equipping component is illustrative of the technologically advanced medical/surgical equipment, medical materiel, and nonmedical equipment required in our Combat, Combat Support, and Combat Service Support force structure.

CSM equipment supports the capabilities of the AMEDD field units to support the Army's full spectrum of operations including offensive, defensive, stability and support of the Army Early Response Force who offers capabilities such as Chemical, Biological, Radiological, Nuclear, and high yield Explosives (CBRNE) Consequence Management Response Force (CCMRF).

CSM modernizes, converts, and recapitalizes the Army Medical Department's (AMEDD's) Table of Organizational Equipment (TOE) force structure with deployable medical platforms. These combat service support systems support medical force structure at all echelons of care. This program resources the acquisition of all categories of medical equipment including surgical, combat stress, medical evacuation, dental, laboratory, radiology, optometry and new medical technology. CSM equips the Army's medical personnel to provide medical and rehabilitative care from first responder, to forward resuscitative care, to theater hospitalization, and en-route care in the Joint Area of Operations.

There are two major CSM requirements continuing in FY18 through FY22. In FY17, Combat Support Hospitals began a multi-year effort to convert and activate in support of the Vice Chief of Staff of the Army approved Field Hospital (FH) Force Design Update (FDU). This update increases FH trauma capabilities and provides improved modularity and flexibility to increase responsiveness on the battlefield. In FY18, Forward Surgical Teams begin to convert, modernize and activate in support of the Vice Chief of Staff of the Army approved Forward Resuscitative Surgical Team FDU. This design provides a standardized, more responsive and rapidly deployable, modular resuscitative and surgical team able to support short (<72hr) and extended (>72hr) operations.

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023
Army	Quantity	3,578	1,012	1,779	1,027	2,806	1,173	1,154	2,594	1,821
	Total Obligation Authority	49.348	50.192	42.097	12.959	55.056	25.730	21.372	30.860	19.124
ANG	Quantity	1,156	250	292	-	292	332	246	297	1,375
	Total Obligation Authority	15.781	7.695	12.130	-	12.130	3.180	3.222	3.149	9.966
AR	Quantity	750	311	211	4	215	123	428	125	260
	Total Obligation Authority	10.395	11.146	3.525	4.568	8.093	1.586	11.133	3.063	4.423
Total:	**Quantity**	**5,484**	**1,573**	**2,282**	**1,031**	**3,313**	**1,628**	**1,828**	**3,016**	**3,456**

Exhibit P-40, Budget Line Item Justification: PB 2019 Army			Date: February 2018
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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023
Secondary Distribution	Total Obligation Authority	75.524	69.033	57.752	17.527	75.279	30.496	35.727	37.072	33.513

Exhibit P-40, Budget Line Item Justification: PB 2019 Army	Date: February 2018
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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 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, P-21			78 / 93.718	43 / 16.855	25 / 9.792	34 / 17.859	- / -	34 / 17.859
P-5	MB1100 / FIELD MEDICAL EQUIPMENT - Medical ASIOE	P-5a			3,488 / 777.340	5,441 / 58.669	1,548 / 59.241	2,248 / 39.893	1,031 / 17.527	3,279 / 57.420
P-40	**Total Gross/Weapon System Cost**				**3,566 / 871.058**	**5,484 / 75.524**	**1,573 / 69.033**	**2,282 / 57.752**	**1,031 / 17.527**	**3,313 / 75.279**

*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 Combat Support Medical (CSM) FY2019 Base Procurement dollars in the amount of $57.752 million procures medical equipment and materiel to support the AMEDD's balanced investment strategy for the Army's approved force structure and Army Force Generation (ARFORGEN) requirements. It provides advanced medical equipment necessary to ensure essential care of combat casualties throughout the range of military operations and includes all care and treatment necessary to return casualties to duty (within the theater evacuation policy) or begin initial treatment and stabilization.

An important part of the CSM mission is the Field Medical Equipment-Medical Associated Support Items of Equipment (ASIOE). FY2019 Base Procurement dollars in the amount of $39.673 Million procures, fields, incrementally modernizes & sustains medical field system (MFS) for the Deployable Force; TOE medical device development and major end items & sets, kits & outfits (SKOs) selection (e.g., trauma, EMT, surgery, optical, lab, dental, vet); TOE major end items (e.g., imaging, image management, systems linked to DoD Electronic Medical Record). MFS is carefully executed to best develop, acquire, sustain, project, and modernize medical materiel capabilities in support of Army priorities. POM priorities are a sustainable holistic approach true to the ARPL and address the needs of the Army's Total Force. MFS provide medical materiel support to all Army components (Active, Reserve, and National Guard) to optimize the medical materiel readiness of tactical Army organizations.

Critical to the CSM mission is the Medical Evacuation (MEDEVAC) Mission Equipment Package (MEP), with a FY2019 base procurement funding in the amount of $18.079 Million it provides operational capabilities necessary to ensure continuance of essential initial treatment, stabilization and care during rapid aeromedical evacuation of critically wounded combat casualties from the battlefield to Combat Support Hospitals (CSH). This rapid, lifesaving care in flight directly contributes to the reduction in the Golden Hour of trauma care, the result of which is the lowest number of combat fatalities seen in war.

FY 2019 OCO procurement dollars in the amount of $17.527 million procures Class VIII medical equipment in support of all units in the European Reassurance Initiative (ERI); backfills Field Medical Equipment from the Medical Materiel Readiness Program (MMRP) in support of DAMO-OD requested transfer of 28th Combat Support Hospital (CSH) mission critical organizational equipment to theatre provided equipment (TPE) in support of Combined Joint Task Force-Operation Inherent Resolve (CJTF-OIR). MEDCOM's role in ERI is to provide support for the accelerated medical build within Army Prepositioned Stocks (APS-2/ Europe) and to assist with sourcing of medical equipment for the European Enduring Equipment Set.

Exhibit P-5, Cost Analysis: PB 2019 Army		Date: February 2018
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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Procurement Quantity *(Units in Each)*	78	43	25	34	-	34
Gross/Weapon System Cost *($ in Millions)*	93.718	16.855	9.792	17.859	-	17.859
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	93.718	16.855	9.792	17.859	-	17.859
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**93.718**	**16.855**	**9.792**	**17.859**	**-**	**17.859**
(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)*	1,201.513	391.977	391.680	525.265	-	525.265

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

Cost Elements	Prior Years			FY 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 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(†)	325.790	62	20.199	149.060	20	2.981	454.429	7	3.181	479.900	12	5.759	-	-	-	479.900	12	5.759
Interim Patient Handling System (IMMSS)(†)	1,312.840	56	73.519	603.200	23	13.874	472.214	14	6.611	550.000	22	12.100	-	-	-	550.000	22	12.100
Subtotal: Recurring Cost	-	-	*93.718*	-	-	*16.855*	-	-	*9.792*	-	-	*17.859*	-	-	-	-	-	*17.859*
Subtotal: Flyaway Cost	**-**	**-**	***93.718***	**-**	**-**	***16.855***	**-**	**-**	***9.792***	**-**	**-**	***17.859***	**-**	**-**	**-**	**-**	**-**	***17.859***
Gross/Weapon System Cost	**1,201.513**	**78**	**93.718**	**391.977**	**43**	**16.855**	**391.680**	**25**	**9.792**	**525.265**	**34**	**17.859**	**-**	**-**	**-**	**525.265**	**34**	**17.859**

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Army	Quantity	16	8	12	-	12
	Total Obligation Authority	7.613	3.604	7.674	-	7.674
ANG	Quantity	27	17	22	-	22
	Total Obligation Authority	9.242	6.188	10.185	-	10.185
Total: Secondary Distribution	**Quantity**	**43**	**25**	**34**	**-**	**34**
	Total Obligation Authority	**16.855**	**9.792**	**17.859**	**-**	**17.859**

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2019 Army		Date: February 2018
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)

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
Medical Mission Sensor FLIR(†)		2018	FLIR Systems, Inc. / Portland Oregon	SS / FFP	USACC, Redstone Arsenal, AL	Oct 2017	Apr 2018	7	454.430			
Interim Patient Handling System (IMMSS)(†)		2018	Air Methods Corp / Denver, Colorado	SS / FFP	USACC, Redstone Arsenal, AL	Oct 2017	Jan 2018	14	472.210			

(†) indicates the presence of a P-21

Remarks:
The Medical Evacuation (MEDEVAC) Mission Equipment Package (MEP) provides critical upgrades to legacy 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 legacy MEDEVAC UH-60A/L Black Hawk helicopters. These subsystems include the Interim MEDEVAC Mission Support System (IMMSS) patient handling system, and the Medical Mission Sensor (MMS) Forward Looking Infrared (FLIR). These aircraft provide the required operational capabilities for aeromedical evacuation, and are utilized throughout the MEDEVAC fleet. The Interim MEDEVAC Mission Support System (IMMSS) includes seat pallets, seats, interior components, and a litter lift system. Includes the Smart Window - This new 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 location sensor. MMS is critical for the continuous visual capability during night and adverse weather conditions.

Exhibit P-21, Production Schedule: PB 2019 Army		Date: February 2018
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)

Cost Elements (Units in Each)							Fiscal Year 2018												Fiscal Year 2019												
										Calendar Year 2018														Calendar Year 2019									
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2017	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	BALANCE
Medical Mission Sensor FLIR																															
Prior Years Deliveries: 62																															
	1	2018	ARMY	7	0	7	A -	-	-	-	-	-	2	-	2	-	2	1													0
Interim Patient Handling System (IMMSS)																															
Prior Years Deliveries: 56																															
	2	2018	ARMY	14	0	14	A -	-	-	11	-	-	-	-	3																0
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2019 Army		Date: February 2018
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)

MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Month)			Procurement Leadtime (Months)							
					Initial				Reorder			
		MSR For 2019	1-8-5 For 2019	MAX For 2019	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	FLIR Systems, Inc. - Portland Oregon	1	15	20	0	0	18	18	0	0	3	3
2	Air Methods Corp - Denver, Colorado	1	15	20	0	0	23	23	0	0	3	3

"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).

Exhibit P-5, Cost Analysis: PB 2019 Army		Date: February 2018
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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Procurement Quantity *(Units in Each)*	3,488	5,441	1,548	2,248	1,031	3,279
Gross/Weapon System Cost *($ in Millions)*	777.340	58.669	59.241	39.893	17.527	57.420
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	777.340	58.669	59.241	39.893	17.527	57.420
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**777.340**	**58.669**	**59.241**	**39.893**	**17.527**	**57.420**
(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)*	222.861	10.783	38.269	17.746	17.000	17.511

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

Cost Elements	Prior Years			FY 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 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(†)	51.460	802	41.271	6.000	242	1.452	27.206	233	6.339	23.000	255	5.865	26.000	41	1.066	23.416	296	6.931
Ambulatory Care Equipment(†)	35.000	3,112	108.920	5.000	4,758	23.790	20.385	1,560	31.801	20.000	1,135	22.700	18.000	600	10.800	19.308	1,735	33.500
Dental Equipment(†)	2.000	58,185	116.370	25.000	58	1.450	98.718	39	3.850	88.000	9	0.792	182.000	6	1.092	125.600	15	1.884
Opthamology/ optometry Equipment	1,495.500	8	11.964	-	-	-	6.778	9	0.061	-	-	-	-	-	-	-	-	-
Surgical Equipment(†)	133.000	1,130	150.290	24.560	731	17.953	17.138	472	8.089	13.000	258	3.354	21.000	61	1.281	14.530	319	4.635
Nursing Equipment	153.000	549	83.997	39.000	90	3.510	-	-	-	-	-	-	-	-	-	-	-	-
Veterinary Equipment(†)	187.500	88	16.500	43.000	70	3.010	40.696	23	0.936	18.500	2	0.037	-	-	-	18.500	2	0.037
Diagnostic Imaging Equipment(†)	2,075.000	106	219.950	103.500	24	2.484	27.965	85	2.377	25.000	24	0.600	87.000	11	0.957	44.486	35	1.557
Therapy/Treatment(†)	5.000	1,072	5.360	4.000	271	1.084	1.583	12	0.019	10.000	12	0.120	-	-	-	10.000	12	0.120
Sterilization(†)	93.000	56	5.208	83.500	6	0.501	-	-	-	-	-	-	-	-	-	-	-	-
Environmental (Chemical)	4.000	275	1.100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Environmental (Water)(†)	5.000	2,082	10.410	4.000	167	0.668	-	-	-	25.000	27	0.675	-	-	-	25.000	27	0.675

Exhibit P-5, Cost Analysis: PB 2019 Army		Date: February 2018
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 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 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)(†)	75.000	80	6.000	7.000	27	0.189	13.922	166	2.311	54.710	88	4.814	33.800	45	1.521	47.632	133	6.335
EVAC/AREA SPT(†)	-	-	-	2.000	271	0.542	-	-	0.869	-	-	-	-	-	-	-	-	-
HOSPITAL(†)	-	-	-	55.000	37	2.035	29.759	87	2.589	55.000	17	0.935	270.000	3	0.810	87.250	20	1.745
Subtotal: Recurring Cost	-	-	*777.340*	-	-	*58.668*	-	-	*59.241*	-	-	*39.892*	-	-	*17.527*	-	-	*57.419*
Subtotal: Flyaway Cost	**-**	**-**	***777.340***	**-**	**-**	***58.668***	**-**	**-**	***59.241***	**-**	**-**	***39.892***	**-**	**-**	***17.527***	**-**	**-**	***57.419***
Gross/Weapon System Cost	**222.861**	**3,488**	**777.340**	**10.783**	**5,441**	**58.669**	**38.269**	**1,548**	**59.241**	**17.746**	**2,248**	**39.893**	**17.000**	**1,031**	**17.527**	**17.511**	**3,279**	**57.420**

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Army	Quantity	3,562	1,004	1,767	1,027	2,794
	Total Obligation Authority	41.735	46.588	34.423	12.959	47.382
ANG	Quantity	1,129	233	270	-	270
	Total Obligation Authority	6.539	1.507	1.945	-	1.945
AR	Quantity	750	311	211	4	215
	Total Obligation Authority	10.395	11.146	3.525	4.568	8.093
Total: Secondary Distribution	**Quantity**	**5,441**	**1,548**	**2,248**	**1,031**	**3,279**
	Total Obligation Authority	**58.669**	**59.241**	**39.893**	**17.527**	**57.420**

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2019 Army		Date: February 2018
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	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
Laboratory science Equipment		2017	Various / Various	Various	various	Mar 2017	Apr 2017	242	6.000			
Laboratory science Equipment		2018	Various / Various	Various	various	Aug 2017	Jan 2018	233	27.210	Y		
Ambulatory Care Equipment		2017	Various / Various	Various	various	Apr 2017	Sep 2017	4,758	5.000			
Ambulatory Care Equipment		2018	Various / Various	Various	various	Aug 2017	Jan 2018	1,560	20.390	Y		
Dental Equipment		2017	Various / Various	TBD	various	Apr 2017	Sep 2017	58	25.000			
Dental Equipment		2018	Various / Various	Various	various	Aug 2017	Jan 2018	39	98.720	Y		
Surgical Equipment		2017	Various / Various	Various	various	Apr 2017	Sep 2017	731	24.560			
Surgical Equipment		2018	Various / Various	Various	various	Aug 2017	Jan 2018	472	17.140	Y		
Veterinary Equipment		2017	Various / Various	Various	various	Sep 2017	Sep 2017	70	43.000			
Veterinary Equipment		2018	Various / Various	Various	various	Aug 2017	Jan 2018	23	40.700	Y		
Diagnostic Imaging Equipment		2017	Various / Various	Various	various	Apr 2017	Sep 2017	24	103.500			
Diagnostic Imaging Equipment		2018	Various / Various	Various	various	Aug 2017	Jan 2018	85	27.970	Y		
Therapy/Treatment		2017	Various / Various	Various	various	Sep 2017	Sep 2017	271	4.000			
Therapy/Treatment		2018	Various / Various	Various	various	Aug 2017	Aug 2018	12	1.580	Y		
Sterilization		2017	Various / Various	Various	various	Apr 2017	Sep 2017	6	83.500			
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			
TMDE (Test, Measurement, Diagnostic Eq)		2017	Various / Various	Various	various	Sep 2017	Sep 2017	27	7.000			
TMDE (Test, Measurement, Diagnostic Eq)		2018	Various / Various	Various	various	Aug 2017	Jan 2018	166	13.920	Y		
EVAC/AREA SPT		2017	Various / Various	Various	various	May 2017	Jun 2017	271	2.000			
EVAC/AREA SPT		2018	Various / Various	Various	various	Aug 2017	Jan 2018	0	0.000	Y		
HOSPITAL		2017	Various / Various	Various	various	Jul 2016	Aug 2017	37	55.000			
HOSPITAL		2018	Various / Various	Various	various	Aug 2017	Jan 2018	87	29.760	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.

Exhibit P-40, Budget Line Item Justification: PB 2019 Army	Date: February 2018
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):	**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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	99	109	85	89	-	89	122	104	119	106	-	833
Gross/Weapon System Cost *($ in Millions)*	340.245	35.159	34.898	37.722	-	37.722	54.843	49.958	56.638	50.771	-	660.234
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	340.245	35.159	34.898	37.722	-	37.722	54.843	49.958	56.638	50.771	-	660.234
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**340.245**	**35.159**	**34.898**	**37.722**	**-**	**37.722**	**54.843**	**49.958**	**56.638**	**50.771**	**-**	**660.234**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost *($ in Thousands)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Thousands)*	3,436.818	322.560	410.565	423.843	-	423.843	449.533	480.365	475.950	478.972	-	792.598

Description:

The Mobile Maintenance Equipment Systems (MMES) employs a system of systems approach to provide two-level maintenance capability to the Warfighter. 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 Metal Working and Machining Shop Set (MWMSS) program is a Shelter Mounted Set that assembles and packages tool load configurations based on the 91E (Allied Trades) Military Occupational Specialty (MOS). 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. MWMSS increases safety and supportability for Allied Trades Soldiers and delivers state of the art machining capabilities using two module types, Type I and Type II. 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, ECU, additive manufacturing, and an assortment of hand/air tools. The MWMSS is transportable by standard ground (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) is a modular, flexible, standardized fire suppression refill station consisting of a transportable ISO 8x8x20 container with an integrated Environmental Control Unit (ECU). The FSRS will be an integrated unit equipped for safe performance of refilling fire suppression bottles and systems. The FSRS will consist of an enclosure (capable of stand-alone or trailer-mounted operation) containing the tools and equipment needed to fulfill the required refill tasks and a trailer for transportation. The FSRS provides the capability to refill the vast majority of fire suppression bottles and systems currently fielded. These systems include both man portable systems as well as the fire suppression systems that can be found in military vehicles. The FSRS shall operate in every Support Maintenance Company (SMC) and Field Maintenance Company (FMC), Ground Support Sections. The FSRS will be 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) 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

Exhibit P-40, Budget Line Item Justification: PB 2019 Army	Date: February 2018
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):	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A

Line Item MDAP/MAIS Code: N/A

a savings to the Army for many years. The ARSS consolidates six 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 six LINs to one results in a reduction from six 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 six armament shop sets while reducing 43% of the armament repair tools in the field. The ARSS will 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 is being produced organically by the Tobyhanna Army Depot, in Pennsylvania. Army Acquisition Objective (AAO) of ARSS is 995.

The Hydraulic Systems Test and Repair Unit (HSTRU) is a robust hydraulic repair system capable of supporting four trained ordnance/engineer Soldiers at one time to conduct maintenance operations. It provides the capability to fabricate industry standard crimp-style hydraulic replacement hoses of all sizes, types, and end configurations as required to restore the hydraulic systems on battle damaged or otherwise non-mission capable equipment. HSTRU also provides the ability to fabricate industry standard steel replacement hydraulic tubes used in brake lines and other high pressure applications and bends and flares these tubes as required to create a proper replacement item. The HSTRU includes an on-system diagnostic test meter that is used for troubleshooting hydraulic problems on the supported platforms. It is a trailer-mounted system with a weather tight enclosure that is configured for rapid setup for use at the point of need. It can be deployed forward on the battlefield for battle damage repair or operated in the motor pool. The HSTRU is highly transportable on or to the battlefield by light tactical vehicle towing, highway trucks, helicopter sling load, C-130 and larger fixed-wing aircraft, smaller and larger marine vessels, and rail. Approved Acquisition Objective (AAO) is 574.

The Shop Equipment, Welding Trailer (SEW) provides a full spectrum of welding capabilities throughout the battlefield, allowing repairs to be performed in all weather, climatic and light conditions. The SEW is a 100% duty cycle welder that can operate continuously until all welds, cutting and repairs are finished and finalized. The SEW provides heavy-duty, on-site welding capability with increased mobility and deployability. The SEW integrates commercial off the shelf (COTS) and non-developmental item (NDI) components in an enclosure mounted on an M103A3 Trailer. The SEW will provide welding repairs to tactical engineer and ordnance maintenance units. The SEW supports two level maintenance utilizing the only qualified welders in the Army. The SEW provides the capability to perform Shielded Metal Arc Welding (SMAW) "STICK", Flux Cored Arc Welding (FCAW), Gas Tungsten Arc Welding (GTAW) "TIG", and Air-Carbon Arc Cutting (AAC) "Arc gouging". The SEW also provides capability to perform Oxyfuel Gas Welding (OFW), Oxy-fuel Gas Cutting (OFC) and Torch Brazing (TB). The SEW provides compressed air on demand, electrical power for lights and electric hand tools, and an illuminated work surface with a vise. Approved Acquisition Objective (AAO) is 562.

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023
Army	Quantity	46	34	59	-	59	80	68	80	69
	Total Obligation Authority	13.811	14.202	25.049	-	25.049	35.766	32.795	37.853	32.854
ANG	Quantity	44	44	21	-	21	30	25	26	24
	Total Obligation Authority	16.655	17.527	8.871	-	8.871	13.686	12.052	12.386	11.568
AR	Quantity	19	7	9	-	9	12	11	13	13
	Total Obligation Authority	4.693	3.169	3.802	-	3.802	5.391	5.111	6.399	6.349
Total: Secondary Distribution	**Quantity**	**109**	**85**	**89**	**-**	**89**	**122**	**104**	**119**	**106**
	Total Obligation Authority	**35.159**	**34.898**	**37.722**	**-**	**37.722**	**54.843**	**49.958**	**56.638**	**50.771**

Exhibit P-40, Budget Line Item Justification: PB 2019 Army	Date: February 2018
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):	**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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 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	B		44 / 29.293	34 / 12.307	26 / 10.520	28 / 13.278	- / -	28 / 13.278
P-5	G05320 / FIRE SUPPRESSION REFILL SYSTEM (FSRS)	P-5a	B		3 / 10.198	13 / 4.236	13 / 6.075	17 / 6.105	- / -	17 / 6.105
P-5	G05330 / ARMAMENT REPAIR SHOP SET (ARSS)	P-5a, P-21	B		52 / 25.732	34 / 16.039	32 / 15.517	26 / 14.131	- / -	26 / 14.131
P-5	G39200 / Hydraulic Systems Test and Repair Unit (HSTRU)	P-5a	A		- / 57.463	22 / 1.371	8 / 1.482	12 / 1.841	- / -	12 / 1.841
P-5	M62700 / Shop Equipment, Welding (SEW)	P-5a			- / 217.559	6 / 1.206	6 / 1.304	6 / 2.367	- / -	6 / 2.367
P-40	**Total Gross/Weapon System Cost**				**99 / 340.245**	**109 / 35.159**	**85 / 34.898**	**89 / 37.722**	**- / -**	**89 / 37.722**

*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 maintenance multipliers that mobilize 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. 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): FY 19 Base procurement dollars in the amount of $6.105 million support 17 FSRS to be fielded to Armored Brigade Combat Teams and Stryker Brigade Combat Teams and Support Maintenance Companies (SMC).

Metal Working and Machining Shop Set (MWMSS): FY19 Base procurement dollars in the amount of $13.278 million supports 28 MWMSS modules (15 Type I and 13 Type II) to be fielded to Active units. MWMSS represents a significant upgrade in technology and replaces several outdated LINs.

Armament Repair Shop Set (ARSS): FY19 Base procurement dollars in the amount of $14.131 million support 26 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.

Hydraulic System Test and Repair Unit (HSTRU): FY19 Base procurement dollars in the amount of $1.841 million will purchase 12 HSTRU 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).

Shop Equipment, Welding (SEW): FY19 Base procurement dollars in the amount of $2.367 million will purchase 6 SEW 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).

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.

Exhibit P-5, Cost Analysis: PB 2019 Army		Date: February 2018
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) : B		**MDAP/MAIS Code:**

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Procurement Quantity *(Units in Each)*	44	34	26	28	-	28
Gross/Weapon System Cost *($ in Millions)*	29.293	12.307	10.520	13.278	-	13.278
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	29.293	12.307	10.520	13.278	-	13.278
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**29.293**	**12.307**	**10.520**	**13.278**	**-**	**13.278**
(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)*	665.750	361.971	404.615	474.214	-	474.214

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

Cost Elements	Prior Years			FY 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 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	-	-	1.458	-	-	0.083	-	-	0.124	-	-	0.127	-	-	-	-	-	0.127
Quality Assurance Support	-	-	1.468	-	-	0.080	-	-	0.124	-	-	0.124	-	-	-	-	-	0.124
Engineer Change Proposal	-	-	2.851	-	-	-	-	-	0.200	-	-	0.200	-	-	-	-	-	0.200
Subtotal: Recurring Cost	-	-	*5.777*	-	-	*0.163*	-	-	*0.448*	-	-	*0.451*	-	-	-	-	-	*0.451*
Subtotal: Flyaway Cost	**-**	**-**	***5.777***	**-**	**-**	***0.163***	**-**	**-**	***0.448***	**-**	**-**	***0.451***	**-**	**-**	**-**	**-**	**-**	***0.451***
Hardware Cost																		
Recurring Cost																		
Metal Working Machining Shop Set Type I(†)	370.000	22	8.140	370.000	17	6.290	377.000	12	4.524	385.000	15	5.775	-	-	-	385.000	15	5.775
Metal Working Machining Shop Set Type II(†)	370.000	22	8.140	305.000	17	5.185	305.000	10	3.050	311.000	13	4.043	-	-	-	311.000	13	4.043
Subtotal: Recurring Cost	-	-	*16.280*	-	-	*11.475*	-	-	*7.574*	-	-	*9.818*	-	-	-	-	-	*9.818*
Subtotal: Hardware Cost	**-**	**-**	***16.280***	**-**	**-**	***11.475***	**-**	**-**	***7.574***	**-**	**-**	***9.818***	**-**	**-**	**-**	**-**	**-**	***9.818***
Package Fielding Cost																		
Recurring Cost																		
Fielding Support	-	-	2.300	-	-	0.170	-	-	0.250	-	-	0.290	-	-	-	-	-	0.290

Exhibit P-5, Cost Analysis: PB 2019 Army		Date: February 2018
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) : 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 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 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	-	-	0.660	-	-	0.083	-	-	0.072	-	-	0.090	-	-	-	-	-	0.090
Tech Manuals	-	-	0.897	-	-	0.350	-	-	1.002	-	-	1.002	-	-	-	-	-	1.002
Subtotal: Recurring Cost	-	-	*3.857*	-	-	*0.603*	-	-	*1.324*	-	-	*1.382*	-	-	-	-	-	*1.382*
Subtotal: Package Fielding Cost	**-**	**-**	***3.857***	**-**	**-**	***0.603***	**-**	**-**	***1.324***	**-**	**-**	***1.382***	**-**	**-**	**-**	**-**	**-**	***1.382***
Support - Program Management Cost																		
Government Management	-	-	3.379	-	-	0.066	-	-	1.174	-	-	1.627	-	-	-	-	-	1.627
Subtotal: Support - Program Management Cost	**-**	**-**	***3.379***	**-**	**-**	***0.066***	**-**	**-**	***1.174***	**-**	**-**	***1.627***	**-**	**-**	**-**	**-**	**-**	***1.627***
Gross/Weapon System Cost	**665.750**	**44**	**29.293**	**361.971**	**34**	**12.307**	**404.615**	**26**	**10.520**	**474.214**	**28**	**13.278**	**-**	**-**	**-**	**474.214**	**28**	**13.278**

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Army	Quantity	20	10	18	-	18
	Total Obligation Authority	4.415	3.653	8.536	-	8.536
ANG	Quantity	8	14	7	-	7
	Total Obligation Authority	6.084	5.711	3.319	-	3.319
AR	Quantity	6	2	3	-	3
	Total Obligation Authority	1.808	1.156	1.423	-	1.423
Total: Secondary Distribution	**Quantity**	**34**	**26**	**28**	**-**	**28**
	Total Obligation Authority	**12.307**	**10.520**	**13.278**	**-**	**13.278**

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2019 Army		Date: February 2018
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	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
Metal Working Machining Shop Set Type I(†)		2017	JMTC / Rock Island	MIPR	JMTC, Rock Island, IL	Nov 2016	Apr 2017	17	370.000			
Metal Working Machining Shop Set Type I(†)		2018	JMTC / Rock Island	MIPR	JMTC, Rock Island, IL	Nov 2017	Apr 2018	12	377.000			
Metal Working Machining Shop Set Type I(†)		2019	JMTC / Rock Island	MIPR	JMTC, Rock Island, IL	Nov 2018	Apr 2019	15	385.000			
Metal Working Machining Shop Set Type II		2017	JMTC / Rock Island	MIPR	JMTC, Rock Island, IL	Nov 2016	Apr 2017	17	305.000			
Metal Working Machining Shop Set Type II		2018	JMTC / Rock Island	MIPR	JMTC, Rock Island, IL	Nov 2017	Apr 2018	10	305.000			
Metal Working Machining Shop Set Type II		2019	JMTC / Rock Island	MIPR	JMTC, Rock Island, IL	Nov 2018	Apr 2019	13	311.000			

(†) indicates the presence of a P-21

Exhibit P-21, Production Schedule: PB 2019 Army		Date: February 2018
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 (Units in Each)							Fiscal Year 2017												Fiscal Year 2018												BALANCE
										Calendar Year 2017														Calendar Year 2018									
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2016	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
Metal Working Machining Shop Set Type I																															
Prior Years Deliveries: 22																															
	1	2017	ARMY	17	0	17		A	-	-	-	-	-	2	2	2	2	2	1	1	1	1	1	1	1							0
	1	2018	ARMY	12	0	12															A	-	-	-	-	-	1	1	1	1	1	1	6
	1	2019	ARMY	15	0	15																											15
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP		

Exhibit P-21, Production Schedule: PB 2019 Army		Date: February 2018
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 (Units in Each)							Fiscal Year 2019												Fiscal Year 2020												BALANCE
										Calendar Year 2019														Calendar Year 2020									
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2018	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
Metal Working Machining Shop Set Type I																															
Prior Years Deliveries: 22																															
	1	2017	ARMY	17	17	0																									0
	1	2018	ARMY	12	6	6	1	1	1	1	1	1																			0
	1	2019	ARMY	15	0	15		A -	-	-	-	-	2	2	2	1	1	1	1	1	1	1	1	1								0
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2019 Army		Date: February 2018
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)							
					Initial				Reorder			
		MSR For 2019	1-8-5 For 2019	MAX For 2019	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	10	15	0	2	8	10	0	2	5	7

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).

Exhibit P-5, Cost Analysis: PB 2019 Army		Date: February 2018
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) : B		**MDAP/MAIS Code:**

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Procurement Quantity *(Units in Each)*	3	13	13	17	-	17
Gross/Weapon System Cost *($ in Millions)*	10.198	4.236	6.075	6.105	-	6.105
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	10.198	4.236	6.075	6.105	-	6.105
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**10.198**	**4.236**	**6.075**	**6.105**	**-**	**6.105**
(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)*	3,399.333	325.846	467.308	359.118	-	359.118

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

Cost Elements	Prior Years			FY 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 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	-	-	0.106	-	-	0.132	-	-	0.048	-	-	0.043	-	-	-	-	-	0.043
Tech Manual	-	-	-	-	-	-	-	-	0.001	-	-	0.001	-	-	-	-	-	0.001
Subtotal: Recurring Cost	-	-	*0.106*	-	-	*0.202*	-	-	*0.049*	-	-	*0.044*	-	-	-	-	-	*0.044*
Subtotal: Flyaway Cost	**-**	**-**	***0.106***	**-**	**-**	***0.202***	**-**	**-**	***0.049***	**-**	**-**	***0.044***	**-**	**-**	**-**	**-**	**-**	***0.044***
Hardware Cost																		
Recurring Cost																		
Fire Suppression Refill System(†)	208.000	3	0.624	267.000	13	3.471	281.000	19	5.339	287.000	17	4.879	-	-	-	287.000	17	4.879
Subtotal: Recurring Cost	-	-	*0.624*	-	-	*3.471*	-	-	*5.339*	-	-	*4.879*	-	-	-	-	-	*4.879*
Subtotal: Hardware Cost	**-**	**-**	***0.624***	**-**	**-**	***3.471***	**-**	**-**	***5.339***	**-**	**-**	***4.879***	**-**	**-**	**-**	**-**	**-**	***4.879***
Support - Fielding Cost																		
Fielding	-	-	0.750	-	-	0.140	-	-	0.063	-	-	0.218	-	-	-	-	-	0.218
Subtotal: Support - Fielding Cost	**-**	**-**	***0.750***	**-**	**-**	***0.140***	**-**	**-**	***0.063***	**-**	**-**	***0.218***	**-**	**-**	**-**	**-**	**-**	***0.218***
Support - Production Engineering Cost																		
Production Engineering	-	-	0.862	-	-	0.058	-	-	0.083	-	-	0.169	-	-	-	-	-	0.169
Subtotal: Support - Production Engineering Cost	**-**	**-**	***0.862***	**-**	**-**	***0.058***	**-**	**-**	***0.083***	**-**	**-**	***0.169***	**-**	**-**	**-**	**-**	**-**	***0.169***

Exhibit P-5, Cost Analysis: PB 2019 Army		Date: February 2018
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) : 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 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 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	-	-	7.196	-	-	0.245	-	-	0.458	-	-	0.630	-	-	-	-	-	0.630
Subtotal: Support - Program Management Cost	**-**	**-**	***7.196***	**-**	**-**	***0.245***	**-**	**-**	***0.458***	**-**	**-**	***0.630***	**-**	**-**	**-**	**-**	**-**	***0.630***
Support - Quality Assurance Cost																		
Quality Assurance	-	-	0.660	-	-	0.120	-	-	0.083	-	-	0.165	-	-	-	-	-	0.165
Subtotal: Support - Quality Assurance Cost	**-**	**-**	***0.660***	**-**	**-**	***0.120***	**-**	**-**	***0.083***	**-**	**-**	***0.165***	**-**	**-**	**-**	**-**	**-**	***0.165***
Gross/Weapon System Cost	**3,399.333**	**3**	**10.198**	**325.846**	**13**	**4.236**	**467.308**	**13**	**6.075**	**359.118**	**17**	**6.105**	**-**	**-**	**-**	**359.118**	**17**	**6.105**

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Army	Quantity	4	5	11	-	11
	Total Obligation Authority	1.256	2.807	3.950	-	3.950
ANG	Quantity	7	7	4	-	4
	Total Obligation Authority	2.418	2.990	1.437	-	1.437
AR	Quantity	2	1	2	-	2
	Total Obligation Authority	0.562	0.278	0.718	-	0.718
Total: Secondary Distribution	**Quantity**	**13**	**13**	**17**	**-**	**17**
	Total Obligation Authority	**4.236**	**6.075**	**6.105**	**-**	**6.105**

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2019 Army		Date: February 2018
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	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
Fire Suppression Refill System		2017	JMTC - Integration / Rock Island Arsenal, IL	MIPR	Rock Island Arsenal, IL	Nov 2016	May 2017	13	267.000			
Fire Suppression Refill System		2018	JMTC - Integration / Rock Island Arsenal, IL	MIPR	Rock Island Arsenal, IL	Nov 2017	May 2018	19	281.000			
Fire Suppression Refill System		2019	JMTC - Integration / Rock Island Arsenal, IL	MIPR	Rock Island Arsenal, IL	Nov 2018	May 2019	17	287.000			

Exhibit P-5, Cost Analysis: PB 2019 Army		Date: February 2018
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) : B		**MDAP/MAIS Code:**

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Procurement Quantity *(Units in Each)*	52	34	32	26	-	26
Gross/Weapon System Cost *($ in Millions)*	25.732	16.039	15.517	14.131	-	14.131
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	25.732	16.039	15.517	14.131	-	14.131
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**25.732**	**16.039**	**15.517**	**14.131**	**-**	**14.131**
(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)*	494.846	471.735	484.906	543.500	-	543.500

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

Cost Elements	Prior Years			FY 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 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	-	-	0.220	-	-	0.150	-	-	0.124	-	-	0.127	-	-	-	-	-	0.127
Quality Assurance	-	-	0.120	-	-	0.040	-	-	0.041	-	-	0.041	-	-	-	-	-	0.041
Engineering Change Proposals	-	-	0.279	-	-	0.226	-	-	0.050	-	-	0.050	-	-	-	-	-	0.050
Transportation	-	-	0.110	-	-	0.078	-	-	0.075	-	-	0.068	-	-	-	-	-	0.068
Subtotal: Recurring Cost	-	-	*0.729*	-	-	*0.494*	-	-	*0.290*	-	-	*0.286*	-	-	-	-	-	*0.286*
Subtotal: Flyaway Cost	**-**	**-**	***0.729***	**-**	**-**	***0.494***	**-**	**-**	***0.290***	**-**	**-**	***0.286***	**-**	**-**	**-**	**-**	**-**	***0.286***
Hardware Cost																		
Recurring Cost																		
ARSS Hardware(†)	393.000	52	20.436	400.000	34	13.600	462.433	30	13.873	470.000	26	12.220	-	-	-	470.000	26	12.220
Subtotal: Recurring Cost	-	-	*20.436*	-	-	*13.600*	-	-	*13.873*	-	-	*12.220*	-	-	-	-	-	*12.220*
Subtotal: Hardware Cost	**-**	**-**	***20.436***	**-**	**-**	***13.600***	**-**	**-**	***13.873***	**-**	**-**	***12.220***	**-**	**-**	**-**	**-**	**-**	***12.220***
Package Fielding Cost																		
Recurring Cost																		
Fielding Support	-	-	0.250	-	-	0.140	-	-	0.125	-	-	0.145	-	-	-	-	-	0.145
Subtotal: Recurring Cost	-	-	*0.250*	-	-	*0.140*	-	-	*0.125*	-	-	*0.145*	-	-	-	-	-	*0.145*
Subtotal: Package Fielding Cost	**-**	**-**	***0.250***	**-**	**-**	***0.140***	**-**	**-**	***0.125***	**-**	**-**	***0.145***	**-**	**-**	**-**	**-**	**-**	***0.145***
Support - Program Management Cost																		

Exhibit P-5, Cost Analysis: PB 2019 Army		Date: February 2018
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) : 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 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 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	-	-	4.317	-	-	1.805	-	-	1.229	-	-	1.480	-	-	-	-	-	1.480
Subtotal: Support - Program Management Cost	**-**	**-**	***4.317***	**-**	**-**	***1.805***	**-**	**-**	***1.229***	**-**	**-**	***1.480***	**-**	**-**	**-**	**-**	**-**	***1.480***
Gross/Weapon System Cost	**494.846**	**52**	**25.732**	**471.735**	**34**	**16.039**	**484.906**	**32**	**15.517**	**543.500**	**26**	**14.131**	**-**	**-**	**-**	**543.500**	**26**	**14.131**

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Army	Quantity	15	15	18	-	18
	Total Obligation Authority	7.290	6.983	9.783	-	9.783
ANG	Quantity	15	15	6	-	6
	Total Obligation Authority	6.921	7.138	3.261	-	3.261
AR	Quantity	4	2	2	-	2
	Total Obligation Authority	1.828	1.396	1.087	-	1.087
Total: Secondary Distribution	**Quantity**	**34**	**32**	**26**	**-**	**26**
	Total Obligation Authority	**16.039**	**15.517**	**14.131**	**-**	**14.131**

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2019 Army		Date: February 2018
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	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
ARSS Hardware(†)		2017	Tobyhanna Army Depot / Tobyhanna	MIPR	TOBYHANNA ARMY DEPOT, PA	Nov 2016	Feb 2017	34	400.000			
ARSS Hardware(†)		2018	Tobyhanna Army Depot / Tobyhanna	MIPR	TOBYHANNA ARMY DEPOT, PA	Nov 2017	Feb 2018	30	462.430			
ARSS Hardware(†)		2019	Tobyhanna Army Depot / Tobyhanna	MIPR	TOBYHANNA ARMY DEPOT, PA	Nov 2018	Feb 2019	26	470.000			

(†) indicates the presence of a P-21

Exhibit P-21, Production Schedule: PB 2019 Army		Date: February 2018
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 (Units in Each)							Fiscal Year 2017												Fiscal Year 2018												BALANCE
										Calendar Year 2017														Calendar Year 2018									
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2016	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
ARSS Hardware																															
Prior Years Deliveries: 52																															
	1	2017	ARMY	34	0	34		A -	-	-	3	3	3	3	3	3	3	3	3	3	3	1									0
	1	2018	ARMY	30	0	30														A -	-	-	3	3	3	3	2	2	2	2	10
	1	2019	ARMY	26	0	26																									26
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2019 Army		Date: February 2018
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 (Units in Each)							Fiscal Year 2019												Fiscal Year 2020												BALANCE
										Calendar Year 2019														Calendar Year 2020									
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2018	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
ARSS Hardware																															
Prior Years Deliveries: 52																															
	1	2017	ARMY	34	34	0																									0
	1	2018	ARMY	30	20	10	2	2	2	4																					0
	1	2019	ARMY	26	0	26		A -	-	-	2	2	2	2	2	2	2	2	2	3	3	2									0
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2019 Army		Date: February 2018
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)							
					Initial				Reorder			
		MSR For 2019	1-8-5 For 2019	MAX For 2019	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	2	5	7	0	2	5	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).

Exhibit P-5, Cost Analysis: PB 2019 Army		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 45	**P-1 Line Item Number / Title:** 0639G05301 / Mobile Maintenance Equipment Systems	**Item Number / Title [DODIC]:** G39200 / Hydraulic Systems Test and Repair Unit (HSTRU)
ID Code (A=Service Ready, B=Not Service Ready) : A		**MDAP/MAIS Code:**

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Procurement Quantity *(Units in Each)*	-	22	8	12	-	12
Gross/Weapon System Cost *($ in Millions)*	57.463	1.371	1.482	1.841	-	1.841
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	57.463	1.371	1.482	1.841	-	1.841
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**57.463**	**1.371**	**1.482**	**1.841**	**-**	**1.841**
(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)*	-	62.318	185.250	153.417	-	153.417

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

Cost Elements	Prior Years			FY 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 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	-	-	3.230	-	-	0.050	-	-	0.041	-	-	0.040	-	-	-	-	-	0.040
Quality Assurance	-	-	2.010	-	-	0.050	-	-	0.041	-	-	0.025	-	-	-	-	-	0.025
Engineering Change Proposals	-	-	4.479	-	-	0.020	-	-	-	-	-	0.036	-	-	-	-	-	0.036
Transportation	-	-	2.586	-	-	0.094	-	-	-	-	-	-	-	-	-	-	-	-
Tech Manuals	-	-	-	-	-	-	-	-	0.001	-	-	0.010	-	-	-	-	-	0.010
Subtotal: Recurring Cost	-	-	*12.305*	-	-	*0.214*	-	-	*0.083*	-	-	*0.111*	-	-	-	-	-	*0.111*
Subtotal: Flyaway Cost	**-**	**-**	***12.305***	**-**	**-**	***0.214***	**-**	**-**	***0.083***	**-**	**-**	***0.111***	**-**	**-**	**-**	**-**	**-**	***0.111***
Hardware Cost																		
Recurring Cost																		
Hydraulic Systems Test and Repair Unit(†)	107.000	310	33.170	39.000	22	0.858	125.000	9	1.125	131.000	12	1.572	-	-	-	131.000	12	1.572
Subtotal: Recurring Cost	-	-	*33.170*	-	-	*0.858*	-	-	*1.125*	-	-	*1.572*	-	-	-	-	-	*1.572*
Subtotal: Hardware Cost	**-**	**-**	***33.170***	**-**	**-**	***0.858***	**-**	**-**	***1.125***	**-**	**-**	***1.572***	**-**	**-**	**-**	**-**	**-**	***1.572***
Package Fielding Cost																		
Recurring Cost																		
Fielding Support	-	-	4.562	-	-	0.147	-	-	0.063	-	-	0.040	-	-	-	-	-	0.040
Subtotal: Recurring Cost	-	-	*4.562*	-	-	*0.147*	-	-	*0.063*	-	-	*0.040*	-	-	-	-	-	*0.040*
Subtotal: Package Fielding Cost	**-**	**-**	***4.562***	**-**	**-**	***0.147***	**-**	**-**	***0.063***	**-**	**-**	***0.040***	**-**	**-**	**-**	**-**	**-**	***0.040***

Exhibit P-5, Cost Analysis: PB 2019 Army		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 45	**P-1 Line Item Number / Title:** 0639G05301 / Mobile Maintenance Equipment Systems	**Item Number / Title [DODIC]:** G39200 / Hydraulic Systems Test and Repair Unit (HSTRU)
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 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 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	-	-	7.426	-	-	0.152	-	-	0.211	-	-	0.118	-	-	-	-	-	0.118
Subtotal: Support - Program Management Cost	**-**	**-**	***7.426***	**-**	**-**	***0.152***	**-**	**-**	***0.211***	**-**	**-**	***0.118***	**-**	**-**	**-**	**-**	**-**	***0.118***
Gross/Weapon System Cost	**-**	**-**	**57.463**	**62.318**	**22**	**1.371**	**185.250**	**8**	**1.482**	**153.417**	**12**	**1.841**	**-**	**-**	**-**	**153.417**	**12**	**1.841**

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Army	Quantity	5	1	8	-	8
	Total Obligation Authority	0.298	0.133	1.203	-	1.203
ANG	Quantity	11	6	3	-	3
	Total Obligation Authority	0.668	1.127	0.459	-	0.459
AR	Quantity	6	1	1	-	1
	Total Obligation Authority	0.405	0.222	0.179	-	0.179
Total: Secondary Distribution	**Quantity**	**22**	**8**	**12**	**-**	**12**
	Total Obligation Authority	**1.371**	**1.482**	**1.841**	**-**	**1.841**

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2019 Army		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 45	P-1 Line Item Number / Title: 0639G05301 / Mobile Maintenance Equipment Systems	Item Number / Title [DODIC]: G39200 / Hydraulic Systems Test and Repair Unit (HSTRU)

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
Hydraulic Systems Test and Repair Unit		2018	Mandus / Rock Island, IL	SS / FFP	TACOM, Warren, MI	Feb 2018	Apr 2018	9	125.000	Y		
Hydraulic Systems Test and Repair Unit		2019	Mandus / Rock Island, IL	SS / FFP	TACOM, Warren, MI	Feb 2019	Apr 2019	12	131.000	Y		

Exhibit P-5, Cost Analysis: PB 2019 Army		Date: February 2018
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) :	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Procurement Quantity *(Units in Each)*	-	6	6	6	-	6
Gross/Weapon System Cost *($ in Millions)*	217.559	1.206	1.304	2.367	-	2.367
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	217.559	1.206	1.304	2.367	-	2.367
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**217.559**	**1.206**	**1.304**	**2.367**	**-**	**2.367**
(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)*	-	201.000	217.333	394.500	-	394.500

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

Cost Elements	Prior Years			FY 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 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	-	-	0.001	-	-	-	-	-	0.001
Subtotal: Recurring Cost	-	-	-	-	-	-	-	-	*0.001*	-	-	*0.001*	-	-	-	-	-	*0.001*
Subtotal: Flyaway Cost	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***0.001***	**-**	**-**	***0.001***	**-**	**-**	**-**	**-**	**-**	***0.001***
Hardware Cost																		
Recurring Cost																		
Shop Equipment Welding(†)	227.000	879	199.533	125.000	6	0.750	307.000	3	0.921	313.000	6	1.878	-	-	-	313.000	6	1.878
Subtotal: Recurring Cost	-	-	*199.533*	-	-	*0.750*	-	-	*0.921*	-	-	*1.878*	-	-	-	-	-	*1.878*
Subtotal: Hardware Cost	**-**	**-**	***199.533***	**-**	**-**	***0.750***	**-**	**-**	***0.921***	**-**	**-**	***1.878***	**-**	**-**	**-**	**-**	**-**	***1.878***
Package Fielding Cost																		
Recurring Cost																		
Fielding	-	-	1.350	-	-	0.150	-	-	0.031	-	-	0.073	-	-	-	-	-	0.073
Transportation	-	-	-	-	-	0.060	-	-	0.001	-	-	0.001	-	-	-	-	-	0.001
Subtotal: Recurring Cost	-	-	*1.350*	-	-	*0.210*	-	-	*0.032*	-	-	*0.074*	-	-	-	-	-	*0.074*
Subtotal: Package Fielding Cost	**-**	**-**	***1.350***	**-**	**-**	***0.210***	**-**	**-**	***0.032***	**-**	**-**	***0.074***	**-**	**-**	**-**	**-**	**-**	***0.074***
Support - Engineering Change Proposals Cost																		
Engineering Change Proposals	-	-	3.263	-	-	0.020	-	-	0.001	-	-	0.001	-	-	-	-	-	0.001

Exhibit P-5, Cost Analysis: PB 2019 Army		Date: February 2018
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) :	**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 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 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)
Subtotal: Support - Engineering Change Proposals Cost	**-**	**-**	***3.263***	**-**	**-**	***0.020***	**-**	**-**	***0.001***	**-**	**-**	***0.001***	**-**	**-**	**-**	**-**	**-**	***0.001***
Support - Production Engineering Cost																		
Production Engineering	-	-	-	-	-	0.087	-	-	0.083	-	-	0.085	-	-	-	-	-	0.085
Subtotal: Support - Production Engineering Cost	**-**	**-**	**-**	**-**	**-**	***0.087***	**-**	**-**	***0.083***	**-**	**-**	***0.085***	**-**	**-**	**-**	**-**	**-**	***0.085***
Support - Program Management Cost																		
Government Management	-	-	13.413	-	-	0.099	-	-	0.183	-	-	0.245	-	-	-	-	-	0.245
Subtotal: Support - Program Management Cost	**-**	**-**	***13.413***	**-**	**-**	***0.099***	**-**	**-**	***0.183***	**-**	**-**	***0.245***	**-**	**-**	**-**	**-**	**-**	***0.245***
Support - Quality Assurance Cost																		
Quality Assurance	-	-	-	-	-	0.040	-	-	0.083	-	-	0.083	-	-	-	-	-	0.083
Subtotal: Support - Quality Assurance Cost	**-**	**-**	**-**	**-**	**-**	***0.040***	**-**	**-**	***0.083***	**-**	**-**	***0.083***	**-**	**-**	**-**	**-**	**-**	***0.083***
Gross/Weapon System Cost	**-**	**-**	**217.559**	**201.000**	**6**	**1.206**	**217.333**	**6**	**1.304**	**394.500**	**6**	**2.367**	**-**	**-**	**-**	**394.500**	**6**	**2.367**

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Army	Quantity	2	3	4	-	4
	Total Obligation Authority	0.552	0.626	1.577	-	1.577
ANG	Quantity	3	2	1	-	1
	Total Obligation Authority	0.564	0.561	0.395	-	0.395
AR	Quantity	1	1	1	-	1
	Total Obligation Authority	0.090	0.117	0.395	-	0.395
Total: Secondary Distribution	**Quantity**	**6**	**6**	**6**	**-**	**6**
	Total Obligation Authority	**1.206**	**1.304**	**2.367**	**-**	**2.367**

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2019 Army		Date: February 2018
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	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
Shop Equipment Welding		2018	JMTC / Rock Island, IL	MIPR	Rock Island, IL	Oct 2017	Apr 2018	3	307.000			
Shop Equipment Welding		2019	JMTC / Rock Island, IL	MIPR	Rock Island, IL	Oct 2018	Apr 2019	6	313.000			

Exhibit P-40, Budget Line Item Justification: PB 2019 Army	Date: February 2018
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):	**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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	117.144	3.404	2.728	4.985	0.268	5.253	4.521	4.304	4.971	5.121	-	147.446
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	117.144	3.404	2.728	4.985	0.268	5.253	4.521	4.304	4.971	5.121	-	147.446
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**117.144**	**3.404**	**2.728**	**4.985**	**0.268**	**5.253**	**4.521**	**4.304**	**4.971**	**5.121**	**-**	**147.446**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost *($ in Thousands)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Thousands)*	117.379	5.799	6.670	7.693	14.889	7.887	7.485	16.060	18.688	18.897	-	36.236

Description:

Items Less Than $5 Million (Maintenance Equipment): Acquire and field maintenance support equipment, such as the Machinist Measuring Tool Set (MMTS), Load Bank System Tactical Electric Power (TEP), Refrigeration Tool Kit Type I and Type II 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 2511.

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 (Type I) and the base kit (Type II). 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 ECUs 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 troops, signal, and command/control equipment; and humanitarian support, disaster relief and homeland support security deployments. The RTK operates in all environments where United States Armed Forces deploy. The RTK provides field level maintenance for all Army equipment that requires an Environmental Control Unit (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 Type I Army Acquisition Objective (AAO) 4762 and Type II 2655.

Exhibit P-40, Budget Line Item Justification: PB 2019 Army	Date: February 2018
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):	**Program Elements for Code B Items:** N/A — **Other Related Program Elements:** N/A
Line Item MDAP/MAIS Code: N/A	

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023
Army	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	1.818	1.443	2.880	0.268	3.148	2.216	1.691	2.181	3.663
ANG	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	1.543	1.093	1.105	-	1.105	1.326	1.994	2.405	1.216
AR	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	0.043	0.192	1.000	-	1.000	0.979	0.619	0.385	0.242
Total: Secondary Distribution	**Quantity**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
	Total Obligation Authority	**3.404**	**2.728**	**4.985**	**0.268**	**5.253**	**4.521**	**4.304**	**4.971**	**5.121**

Exhibit P-40, Budget Line Item Justification: PB 2019 Army	Date: February 2018
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):	**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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 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)				- / 117.144	- / 3.404	- / 2.728	- / 4.985	- / 0.268	- / 5.253
P-40	**Total Gross/Weapon System Cost**				**- / 117.144**	**- / 3.404**	**- / 2.728**	**- / 4.985**	**- / 0.268**	**- / 5.253**

*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:
FY19 Base procurement dollars in the amount of $3.961 million will procure 293 Machinist Measuring Tool Sets, $.339 million will procure 69 Load Bank System Tactical Electric Power (TEP), $0.230 million will procure 12 Refrigeration Tool Kits (RTK) - Individual Soldier Kit, $0.100 million will procure 3 RTK - Base Kit, and $.355 is support cost for the systems mentioned.

FY19 OCO dollars in the amount of $.136 million will procure 14 RTK - Individual Soldier Kit, and $.132 million will procure 4 RTK - Base Kit.

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. 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.

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.

Exhibit P-5, Cost Analysis: PB 2019 Army		Date: February 2018
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) :		**MDAP/MAIS Code:**

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	117.144	3.404	2.728	4.985	0.268	5.253
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	117.144	3.404	2.728	4.985	0.268	5.253
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**117.144**	**3.404**	**2.728**	**4.985**	**0.268**	**5.253**
(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)*	117.379	5.799	6.670	7.693	14.889	7.887

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

Cost Elements	Prior Years			FY 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 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	5.425	365	1.980	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
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	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Recurring Cost	-	-	*100.581*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Flyaway Cost	**-**	**-**	***100.581***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Hardware Cost																		
Recurring Cost																		
Load Banks	5.271	166	0.875	4.910	166	0.815	5.026	190	0.955	4.913	69	0.339	-	-	-	4.913	69	0.339
Refrigeration Tool Kit - Type I	-	-	-	-	-	-	8.000	19	0.152	19.167	12	0.230	16.429	14	0.230	17.692	26	0.460
Refrigeration Tool Kit - Type II	-	-	-	-	-	-	27.000	3	0.081	33.333	3	0.100	9.500	4	0.038	19.714	7	0.138
Machinist Measuring Tool Set	3.064	421	1.290	4.995	421	2.103	5.234	167	0.874	13.519	293	3.961	-	-	-	13.519	293	3.961

Exhibit P-5, Cost Analysis: PB 2019 Army		Date: February 2018
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) :		**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 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 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)
Subtotal: Recurring Cost	-	-	*2.165*	-	-	*2.918*	-	-	*2.062*	-	-	*4.630*	-	-	*0.268*	-	-	*4.898*
Subtotal: Hardware Cost	**-**	**-**	***2.165***	**-**	**-**	***2.918***	**-**	**-**	***2.062***	**-**	**-**	***4.630***	**-**	**-**	***0.268***	**-**	**-**	***4.898***
Support - Fielding Cost																		
Fielding	-	-	1.509	-	-	0.145	-	-	0.315	-	-	0.141	-	-	-	-	-	0.141
Subtotal: Support - Fielding Cost	**-**	**-**	***1.509***	**-**	**-**	***0.145***	**-**	**-**	***0.315***	**-**	**-**	***0.141***	**-**	**-**	**-**	**-**	**-**	***0.141***
Support - Production Engineering Cost																		
Production Engineering	-	-	1.500	-	-	0.080	-	-	0.059	-	-	0.059	-	-	-	-	-	0.059
Subtotal: Support - Production Engineering Cost	**-**	**-**	***1.500***	**-**	**-**	***0.080***	**-**	**-**	***0.059***	**-**	**-**	***0.059***	**-**	**-**	**-**	**-**	**-**	***0.059***
Support - Program Management Cost																		
Government Management	-	-	11.389	-	-	0.181	-	-	0.233	-	-	0.096	-	-	-	-	-	0.096
Subtotal: Support - Program Management Cost	**-**	**-**	***11.389***	**-**	**-**	***0.181***	**-**	**-**	***0.233***	**-**	**-**	***0.096***	**-**	**-**	**-**	**-**	**-**	***0.096***
Support - Quality Assurance Cost																		
Quality Assurance	-	-	-	-	-	0.080	-	-	0.059	-	-	0.059	-	-	-	-	-	0.059
Subtotal: Support - Quality Assurance Cost	**-**	**-**	**-**	**-**	**-**	***0.080***	**-**	**-**	***0.059***	**-**	**-**	***0.059***	**-**	**-**	**-**	**-**	**-**	***0.059***
Gross/Weapon System Cost	**117.379**	**-**	**117.144**	**5.799**	**-**	**3.404**	**6.670**	**-**	**2.728**	**7.693**	**-**	**4.985**	**14.889**	**-**	**0.268**	**7.887**	**-**	**5.253**

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Army	Quantity	-	-	-	-	-
	Total Obligation Authority	1.818	1.443	2.880	0.268	3.148
ANG	Quantity	-	-	-	-	-
	Total Obligation Authority	1.543	1.093	1.105	-	1.105
AR	Quantity	-	-	-	-	-
	Total Obligation Authority	0.043	0.192	1.000	-	1.000
Total: Secondary Distribution	**Quantity**	**-**	**-**	**-**	**-**	**-**
	Total Obligation Authority	**3.404**	**2.728**	**4.985**	**0.268**	**5.253**

Exhibit P-40, Budget Line Item Justification: PB 2019 Army	Date: February 2018
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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	42	245	2	-	-	-	-	-	-	-	-	289
Gross/Weapon System Cost *($ in Millions)*	326.611	4.789	0.989	-	-	-	-	-	-	-	-	332.389
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	326.611	4.789	0.989	-	-	-	-	-	-	-	-	332.389
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**326.611**	**4.789**	**0.989**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**332.389**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost *($ in Thousands)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Thousands)*	7,776.452	19.547	494.500	-	-	-	-	-	-	-	-	1,150.135

Description:

Graders are used by Horizontal & Vertical Companies, Engineer Support Companies, Clearance Companies, Asphalt Teams and Quarry Platoons in support of engineer requirements. 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 and scarifier. The Grader may be driven from one work site to another and is used for grading, shaping, bank sloping, ditching, scarifying, general construction and maintenance of roads and airfields. 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) to 881 (861 Type I & 20 Type IA); with 44 Construction Equipment Virtual Trainers (CEVT).

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023
Army	Quantity	244	2	-	-	-	-	-	-	-
	Total Obligation Authority	4.205	0.989	-	-	-	-	-	-	-
ANG	Quantity	1	-	-	-	-	-	-	-	-
	Total Obligation Authority	0.584	-	-	-	-	-	-	-	-
Total: Secondary Distribution	**Quantity**	**245**	**2**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
	Total Obligation Authority	**4.789**	**0.989**	**-**	**-**	**-**	**-**	**-**	**-**	**-**

Justification:

This program has no FY 2019 Base procurement requirements.

IAW Section 1815 of the FY 2008 NDAA this item is necessary for use by the active components and reserve components of the Armed Forces for homeland defense missions, domestic emergency responses, and providing military support to civil authorities.

Exhibit P-40, Budget Line Item Justification: PB 2019 Army	Date: February 2018
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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	67	39	15	10	-	10	-	-	16	16	-	163
Gross/Weapon System Cost *($ in Millions)*	256.311	26.233	11.180	7.961	-	7.961	-	-	11.960	11.960	-	325.605
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	256.311	26.233	11.180	7.961	-	7.961	-	-	11.960	11.960	-	325.605
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**256.311**	**26.233**	**11.180**	**7.961**	**-**	**7.961**	**-**	**-**	**11.960**	**11.960**	**-**	**325.605**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost *($ in Thousands)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Thousands)*	3,825.537	672.641	745.333	796.100	-	796.100	-	-	747.500	747.500	-	1,997.577

Description:

The 14-18 Cubic Yard, Earthmoving Heavy Scraper is used by Horizontal Construction Companies, Vertical Construction Companies and Engineering Companies. 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, Earthmoving Heavy Scraper has the ability to self-load at a reduced production capacity. The 14-18 Cubic Yard, Earthmoving Heavy Scraper provides a hauling and dumping capability to perform efficient tasks in support of earthmoving projects. The 14-18 Cubic Yard, Earthmoving 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 666; with 200 Armor Kits, and 35 Construction Equipment Virtual Trainers (CEVT).

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023
Army	Quantity	23	4	-	-	-	-	-	16	16
	Total Obligation Authority	2.629	2.980	-	-	-	-	-	11.960	11.960
ANG	Quantity	7	-	-	-	-	-	-	-	-
	Total Obligation Authority	11.802	-	-	-	-	-	-	-	-
AR	Quantity	9	11	10	-	10	-	-	-	-
	Total Obligation Authority	11.802	8.200	7.961	-	7.961	-	-	-	-
Total: Secondary Distribution	**Quantity**	**39**	**15**	**10**	**-**	**10**	**-**	**-**	**16**	**16**
	Total Obligation Authority	**26.233**	**11.180**	**7.961**	**-**	**7.961**	**-**	**-**	**11.960**	**11.960**

Exhibit P-40, Budget Line Item Justification: PB 2019 Army	Date: February 2018
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

Exhibits Schedule					Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 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	R02800 / SCRAPER, EARTHMOVING, 14-18 CU YD	P-5a	A		67 / 256.311	39 / 26.233	15 / 11.180	10 / 7.961	- / -	10 / 7.961
P-40	**Total Gross/Weapon System Cost**				**67 / 256.311**	**39 / 26.233**	**15 / 11.180**	**10 / 7.961**	**- / -**	**10 / 7.961**

*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 2019 Base procurement dollars in the amount of $7.961 million procures 10 Heavy Scrapers and funds all associated Program Management support costs. The Scraper provides the Army's forces improved mobility and deployability to meet Army requirements. New Scrapers will provide updated technology, electronics, and hydraulics which will increase the current readiness and reduce the logistics footprint.

This program is considered a Critical Dual Use (CDU) system enabling and supporting Defense Support to Civil Authorities (DSCA) operations.

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.

Exhibit P-5, Cost Analysis: PB 2019 Army		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 50	**P-1 Line Item Number / Title:** 0822RA0100 / Scrapers, Earthmoving	**Item Number / Title [DODIC]:** R02800 / SCRAPER, EARTHMOVING, 14-18 CU YD
ID Code (A=Service Ready, B=Not Service Ready) : A		**MDAP/MAIS Code:**

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Procurement Quantity *(Units in Each)*	67	39	15	10	-	10
Gross/Weapon System Cost *($ in Millions)*	256.311	26.233	11.180	7.961	-	7.961
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	256.311	26.233	11.180	7.961	-	7.961
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**256.311**	**26.233**	**11.180**	**7.961**	**-**	**7.961**
(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)*	3,825.537	672.641	745.333	796.100	-	796.100

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

Cost Elements	Prior Years			FY 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 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(†)	598.809	68	40.719	611.000	39	23.829	611.000	15	9.165	648.100	10	6.481	-	-	-	648.100	10	6.481
Armor Kits	28.700	10	0.287	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Engineering Changes	-	-	0.273	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
System Engineering/ Program Management	-	-	55.086	-	-	0.901	-	-	0.865	-	-	0.447	-	-	-	-	-	0.447
System Test & Evaluation, Production	-	-	33.878	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Training	-	-	23.043	-	-	-	-	-	0.615	-	-	-	-	-	-	-	-	-
Data	-	-	38.212	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fielding	-	-	64.813	-	-	1.503	-	-	0.535	-	-	1.033	-	-	-	-	-	1.033
Subtotal: Recurring Cost	-	-	*256.311*	-	-	*26.233*	-	-	*11.180*	-	-	*7.961*	-	-	-	-	-	*7.961*
Subtotal: Flyaway Cost	**-**	**-**	***256.311***	**-**	**-**	***26.233***	**-**	**-**	***11.180***	**-**	**-**	***7.961***	**-**	**-**	**-**	**-**	**-**	***7.961***
Gross/Weapon System Cost	**3,825.537**	**67**	**256.311**	**672.641**	**39**	**26.233**	**745.333**	**15**	**11.180**	**796.100**	**10**	**7.961**	**-**	**-**	**-**	**796.100**	**10**	**7.961**

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Army	Quantity	23	4	-	-	-
	Total Obligation Authority	2.629	2.980	-	-	-
ANG	Quantity	7	-	-	-	-

Exhibit P-5, Cost Analysis: PB 2019 Army		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 50	**P-1 Line Item Number / Title:** 0822RA0100 / Scrapers, Earthmoving	**Item Number / Title [DODIC]:** R02800 / SCRAPER, EARTHMOVING, 14-18 CU YD
ID Code (A=Service Ready, B=Not Service Ready) : A		**MDAP/MAIS Code:**

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
	Total Obligation Authority	11.802	-	-	-	-
AR	Quantity	9	11	10	-	10
	Total Obligation Authority	11.802	8.200	7.961	-	7.961
Total: Secondary Distribution	**Quantity**	**39**	**15**	**10**	**-**	**10**
	Total Obligation Authority	**26.233**	**11.180**	**7.961**	**-**	**7.961**

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2019 Army		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 50	**P-1 Line Item Number / Title:** 0822RA0100 / Scrapers, Earthmoving	**Item Number / Title [DODIC]:** R02800 / SCRAPER, EARTHMOVING, 14-18 CU YD

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		2016	Caterpillar / Peoria	C / FFP	Quantico, VA	Dec 2015	Jun 2016	46	601.590	Y		
Hardware		2017	Caterpillar / Peoria	C / FFP	Quantico, VA	Mar 2017	Sep 2017	39	611.000	Y		
Hardware		2018	Caterpillar / Peoria	C / FFP	Quantico, VA	Jan 2018	Jul 2018	15	611.000	Y		
Hardware		2019	Caterpillar / Peoria	C / FFP	Quantico, VA	Mar 2019	Sep 2019	10	648.100	Y		

Remarks:
This is a commericial off the shelf (COTS) program.

Exhibit P-40, Budget Line Item Justification: PB 2019 Army	Date: February 2018
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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	6	0	5	2	-	2	-	-	5	30	-	48
Gross/Weapon System Cost *($ in Millions)*	118.187	1.123	3.850	1.355	-	1.355	-	-	2.400	20.185	-	147.100
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	118.187	1.123	3.850	1.355	-	1.355	-	-	2.400	20.185	-	147.100
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**118.187**	**1.123**	**3.850**	**1.355**	**-**	**1.355**	**-**	**-**	**2.400**	**20.185**	**-**	**147.100**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost *($ in Thousands)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Thousands)*	19,697.833	-	770.000	677.500	-	677.500	-	-	480.000	672.833	-	3,064.583

Description:

The Hydraulic Excavator Type I (HYEX-I) is a commercial off-the-shelf (COTS) vehicle with minor military modifications. It is diesel engine driven, self-propelled, track mounted, hydraulically controlled system, equipped with a hydraulic quick coupler system for use with a wide variety of attachments. The support equipment include a hydraulic impact breaker, plate compactor, crushing unit, barrier grapple, arm extension for dredging, and a variety of buckets for digging, dredging, and trenching. The HYEX-I provides engineer units a multi-functional construction capability that can dig, trench, dredge, scoop, lift, dump, and perform demolition to structures. The HYEX-I also has the capability to accept a Crew Protection Kit in the form of a replaceable armor C-Kit cab for contingency operations. The HYEX is fielded to Horizontal Construction Companies, VERT Companies, Multi-Role Bridge Companies, and the TRADOC training base. The minimum monthly sustaining rate for the HYEX is 5 systems per month. The HYEX Type I Army Acquisition Objective (AAO) is 472; with 35 Construction Equipment Virtual Trainers (CEVT).

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023
Army	Quantity	-	5	2	-	2	-	-	2	7
	Total Obligation Authority	0.555	3.850	1.355	-	1.355	-	-	0.903	7.703
ANG	Quantity	-	-	-	-	-	-	-	2	12
	Total Obligation Authority	-	-	-	-	-	-	-	0.903	6.503
AR	Quantity	-	-	-	-	-	-	-	1	11
	Total Obligation Authority	0.568	-	-	-	-	-	-	0.594	5.979
Total: Secondary Distribution	**Quantity**	**-**	**5**	**2**	**-**	**2**	**-**	**-**	**5**	**30**
	Total Obligation Authority	**1.123**	**3.850**	**1.355**	**-**	**1.355**	**-**	**-**	**2.400**	**20.185**

Justification:

FY 19 Base procurement dollars in the amount of $1.355 million procures support construction equipment in support of the Hydraulic Excavator Type I (HYEX-I) vehicle.

Exhibit P-40, Budget Line Item Justification: PB 2019 Army		Date: February 2018
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		

Note: This program is considered a Critical Dual Use (CDU) system enabling and supporting Defense Support to Civil Authorities (DSCA) operations.

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.

Exhibit P-40, Budget Line Item Justification: PB 2019 Army	Date: February 2018
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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	147	11	-	-	-	-	4	-	-	-	-	162
Gross/Weapon System Cost *($ in Millions)*	604.734	5.311	-	-	-	-	2.685	-	-	-	-	612.730
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	604.734	5.311	-	-	-	-	2.685	-	-	-	-	612.730
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**604.734**	**5.311**	**-**	**-**	**-**	**-**	**2.685**	**-**	**-**	**-**	**-**	**612.730**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost *($ in Thousands)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Thousands)*	4,113.837	482.818	-	-	-	-	671.250	-	-	-	-	3,782.284

Description:

This line covers both the T9 Medium Tractor, Full Tracked and the T5 Light Tractor, Full Tracked. These Bulldozers are used to perform dozing, rough grading, cutting and filling, and ripping in support of general engineer construction tasks; to build and maintain roads and airfields; and to build and support tactical missions. When equipped with armor protection, they fulfill the military requirements for mine clearing and military specific operations in a hostile environment. These Bulldozers are equipped with a power shift transmission and hydraulically operated semi-U type Bulldozer blade. The Bulldozers have either a winch or a ripper. Due to the low ground bearing pressure, the Bulldozer possesses the capability to work in adverse underfoot conditions and is normally one of the first pieces of construction equipment on a job site. The T9 Medium Tractor, Full Tracked is a low speed, medium draw bar pull bulldozer with a blade and is a basic item of earthmoving equipment used for heavy dozing and clearing. The T5 Light Tractor, Full Tracked is a smaller, air mobile, air droppable Bulldozer used in airborne operations for construction and maintenance emplacements, roads and airfields. This is a commercial off the shelf (COTS) program.The Army Acquisition Objective (AAO) is 1,600 (T-9: 1,296 and T-5: 304); with an Armor Kit requirement of 366 (T-9: 318 and T-5: 48) and 35 Construction Equipment Virtual Trainers (CEVT).

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023
Army	Quantity	11	-	-	-	-	4	-	-	-
	Total Obligation Authority	5.311	-	-	-	-	2.685	-	-	-
Total: Secondary Distribution	**Quantity**	**11**	**-**	**-**	**-**	**-**	**4**	**-**	**-**	**-**
	Total Obligation Authority	**5.311**	**-**	**-**	**-**	**-**	**2.685**	**-**	**-**	**-**

Justification:

This program has no FY 2019 Request.

Note: This program is considered a Critical Dual Use (CDU) system enabling and supporting Defense Support to Civil Authorities (DSCA) operations.

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.

Exhibit P-40, Budget Line Item Justification: PB 2019 Army		Date: February 2018
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		

Exhibit P-40, Budget Line Item Justification: PB 2019 Army	Date: February 2018
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):	**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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	5	9	6	8	-	8	9	18	21	18	-	94
Gross/Weapon System Cost *($ in Millions)*	24.464	67.790	8.935	13.031	-	13.031	17.057	31.445	38.061	35.566	-	236.349
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	24.464	67.790	8.935	13.031	-	13.031	17.057	31.445	38.061	35.566	-	236.349
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**24.464**	**67.790**	**8.935**	**13.031**	**-**	**13.031**	**17.057**	**31.445**	**38.061**	**35.566**	**-**	**236.349**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost *($ in Thousands)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Thousands)*	4,892.800	7,532.222	1,489.167	1,628.875	-	1,628.875	1,895.222	1,746.944	1,812.429	1,975.889	-	2,514.351

Description:

The All Terrain Cranes (ATC) Type I/II are self deployable systems capable of traveling on both primary and secondary roads with off-road maneuverability. The ATC Type I provides light to medium lift capabilities at a capacity of up to 25 tons. The ATC Type II provides heavy lift capabilities required by the Engineer force at a capacity of up to 50 tons. The ATC Type II provides mobility, survivability, and counter-mobility support across the entire range of theater operations supporting Route Remediation Units, Maneuver Brigade Combat Teams, and/or Expeditionary Engineer Brigades. The ATC Type II supports Joint Force capabilities to repair and expand operating capacities of Ports of Embarkation (POE), Intermediate Staging Bases/Forward Operating Bases, Ports of Debarkation (POD), entry points and bridging in and around the battle space. The ATC Type II provides capability to load and unload containers; to support base camp construction, force protection, and overhead lift operations; to assist in the loading of earth, sand, gravel, rock, and bulk-type materials; to drive steel, concrete, and timber piles; to perform tasks supporting construction rehabilitation and maintenance of mooring systems, jetties, breakwaters, and other structures; to participate in tasks that support the construction of piers, wharves, ramps and related structures required for cargo loading and off-loading; and to assist in the preparation and construction of facilities for Roll On Roll Off (RORO). The ATC Army Acquisition Objective (AAO) is 393 Systems (Type I: 179; Type II: 214 Systems). This is a Commercial-off-the Shelf (COTS) program.

Exhibit P-40, Budget Line Item Justification: PB 2019 Army	Date: February 2018
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):	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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 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			5 / 24.464	9 / 67.790	6 / 8.935	8 / 13.031	- / -	8 / 13.031
P-40	**Total Gross/Weapon System Cost**				**5 / 24.464**	**9 / 67.790**	**6 / 8.935**	**8 / 13.031**	**- / -**	**8 / 13.031**

*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 2019 Base procurement dollars in the amount of $13.031 million procures and fields 8 All Terrain Cranes (ATC) Type II systems and funds all associated Program Management support costs. The ATC Type II system is 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.

Exhibit P-5, Cost Analysis: PB 2019 Army		Date: February 2018
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) :	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Procurement Quantity *(Units in Each)*	5	9	6	8	-	8
Gross/Weapon System Cost *($ in Millions)*	24.464	67.790	8.935	13.031	-	13.031
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	24.464	67.790	8.935	13.031	-	13.031
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**24.464**	**67.790**	**8.935**	**13.031**	**-**	**13.031**
(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)*	4,892.800	7,532.222	1,489.167	1,628.875	-	1,628.875

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

Cost Elements	Prior Years			FY 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 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 ATC Type II(†)	1,859.125	8	14.873	1,337.000	9	12.033	1,349.667	6	8.098	1,413.500	8	11.308	-	-	-	1,413.500	8	11.308
Hardware MOTCO Crane(†)	-	-	-	51,294.000	1	51.294	-	-	-	-	-	-	-	-	-	-	-	-
System Engineering/ Program Management	-	-	3.752	-	-	1.388	-	-	0.577	-	-	0.707	-	-	-	-	-	0.707
System Test and Evaluation, Production	-	-	0.971	-	-	1.570	-	-	-	-	-	-	-	-	-	-	-	-
Data	-	-	4.507	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fielding	-	-	0.361	-	-	1.505	-	-	0.260	-	-	1.016	-	-	-	-	-	1.016
Subtotal: Recurring Cost	-	-	*24.464*	-	-	*67.790*	-	-	*8.935*	-	-	*13.031*	-	-	-	-	-	*13.031*
Subtotal: Flyaway Cost	**-**	**-**	***24.464***	**-**	**-**	***67.790***	**-**	**-**	***8.935***	**-**	**-**	***13.031***	**-**	**-**	**-**	**-**	**-**	***13.031***
Gross/Weapon System Cost	**4,892.800**	**5**	**24.464**	**7,532.222**	**9**	**67.790**	**1,489.167**	**6**	**8.935**	**1,628.875**	**8**	**13.031**	**-**	**-**	**-**	**1,628.875**	**8**	**13.031**

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2019 Army		Date: February 2018
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	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 ATC Type II		2017	Grove US, LLC / Shady Grove, PA	SS / FFP	Warren, MI	Jun 2017	Dec 2017	9	1,337.000			
Hardware ATC Type II		2018	Grove US, LLC / Shady Grove, PA	SS / FFP	Warren, MI	Feb 2018	Oct 2018	6	1,349.670			
Hardware ATC Type II		2019	Grove US, LLC / Shady Grove, PA	SS / FFP	Warren, MI	Jan 2019	Sep 2019	8	1,413.500			
Hardware MOTCO Crane		2017	TBD / TBD	SS / TBD	TBD	Sep 2018	Sep 2019	1	51,294.000			

Remarks:
The All Terrain Cranes is a Commercial-off-the-Shelf (COTS) system.

Exhibit P-40, Budget Line Item Justification: PB 2019 Army	Date: February 2018
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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	3	45	131	80	50	130	55	16	6	40	-	426
Gross/Weapon System Cost *($ in Millions)*	299.463	20.563	66.271	46.048	25.700	71.748	27.188	8.351	3.199	16.422	-	513.205
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	299.463	20.563	66.271	46.048	25.700	71.748	27.188	8.351	3.199	16.422	-	513.205
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**299.463**	**20.563**	**66.271**	**46.048**	**25.700**	**71.748**	**27.188**	**8.351**	**3.199**	**16.422**	**-**	**513.205**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost *($ in Thousands)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Thousands)*	99,821.000	456.956	505.885	575.600	514.000	551.908	494.327	521.938	533.167	410.550	-	1,204.707

Description:

The High Mobility Engineer Excavator Type I (HMEE-I) is a non-developmental item (NDI). It is used to clear rubble and debris from routes, roads, airfields, and the construction of these elements to include providing survivability positions for the maneuver forces. It is all-wheeled drive, diesel engine driven, highly mobile, equipped with a front bucket and a rear excavation bucket, and capable of using forklift, sweeper, and auger attachments. It is self-deployable, does not require a truck/trailer combination for transport, and can reach speeds up to 60 MPH. It is transported on C-130 (w/o armor), C-5, and C-17 aircraft. The HMEE-I also has the capability to accept a Crew Protection Kit in the form of an armored cab for contingency operations. The HMEE-I provides the capability of maintaining pace with the rapid movement of forces between engagements. The HMEE-I is fielded to Heavy, Light, and Stryker Brigade Combat Teams, Engineer Support Companies, Multi-Roll Bridge Companies, Route Clearance Companies, Petroleum Pipeline Companies and the Army training base. A quantity of 266 HMEE-I vehicles may be converted into semi-autonomous Route Clearance Interrogation System (RCIS)-capable vehicles, which requires a revision of the Interactive Technical Manual (IETM) to incorporate fleet retrofits of the Engineering Change Proposals (ECP). The minimum monthly sustaining rate for the HMEE-I is 3 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 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: 1,990 (HMEE-I: 1,308/HMEE-III: 682).

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023
Army	Quantity	43	15	23	50	73	16	16	6	40
	Total Obligation Authority	19.373	8.064	14.039	25.700	39.739	8.086	8.351	3.199	16.422
ANG	Quantity	1	58	29	-	29	29	-	-	-

Exhibit P-40, Budget Line Item Justification: PB 2019 Army	Date: February 2018
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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023
	Total Obligation Authority	0.600	29.104	16.262	-	16.262	14.434	-	-	-
AR	Quantity	1	58	28	-	28	10	-	-	-
	Total Obligation Authority	0.590	29.103	15.747	-	15.747	4.668	-	-	-
Total: Secondary Distribution	**Quantity**	**45**	**131**	**80**	**50**	**130**	**55**	**16**	**6**	**40**
	Total Obligation Authority	**20.563**	**66.271**	**46.048**	**25.700**	**71.748**	**27.188**	**8.351**	**3.199**	**16.422**

Exhibit P-40, Budget Line Item Justification: PB 2019 Army	Date: February 2018
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

Exhibits Schedule					Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 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	R05900 / High Mobility Engineer Excavator (HMEE) Type I	P-5a, P-21	B		3 / 299.463	45 / 20.563	131 / 66.271	80 / 46.048	50 / 25.700	130 / 71.748
P-40	**Total Gross/Weapon System Cost**				**3 / 299.463**	**45 / 20.563**	**131 / 66.271**	**80 / 46.048**	**50 / 25.700**	**130 / 71.748**

*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:

FY19 Base procurement dollars in the amount of $46.048 million will procure 80 HMEE-I un-armored vehicles and programmatic system support, and the revision of the Interactive Electronic Technical Manuals (IETM) for the base HMEE-I vehicles to incorporate fleet retrofits of Engineering Change Proposals related to the 266 HMEE-I vehicles being converted into semi-autonomous Route Clearance Interrogation System (RCIS)-capable vehicles.

FY19 OCO procurement dollars in the amount of $25.700 million will procure 50 HMEE-I armored vehicles to support the Combatant Command (COCOM) requirement to replace battlefield loss for Operation Enduring Freedom - Horn of Africa. The purchase of armored vehicles replaces theater-specific equipment and has an increased unit cost over the un-armored vehicle.

This program is considered a Critical Dual Use (CDU) system enabling and supporting Defense Support to Civil Authorities (DSCA) operations.

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.

Exhibit P-5, Cost Analysis: PB 2019 Army		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 50	**P-1 Line Item Number / Title:** 7495R05901 / High Mobility Engineer Excavator (HMEE)	**Item Number / Title [DODIC]:** R05900 / High Mobility Engineer Excavator (HMEE) Type I
ID Code (A=Service Ready, B=Not Service Ready) : B		**MDAP/MAIS Code:**

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Procurement Quantity *(Units in Each)*	3	45	131	80	50	130
Gross/Weapon System Cost *($ in Millions)*	299.463	20.563	66.271	46.048	25.700	71.748
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	299.463	20.563	66.271	46.048	25.700	71.748
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**299.463**	**20.563**	**66.271**	**46.048**	**25.700**	**71.748**
(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)*	99,821.000	456.956	505.885	575.600	514.000	551.908

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

	Prior Years			FY 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 Total		
Cost Elements	**Unit Cost** *($ K)*	**Qty** *(Each)*	**Total Cost** *($ M)*	**Unit Cost** *($ K)*	**Qty** *(Each)*	**Total Cost** *($ M)*	**Unit Cost** *($ K)*	**Qty** *(Each)*	**Total Cost** *($ M)*	**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 - HMEE (I) System	2,519.282	103	259.486	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Support Equipment - Special Tools	26.461	178	4.710	-	-	-	-	-	-	-	-	0.620	-	-	-	-	-	0.620
Engineering Changes	-	-	1.367	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Data: TM Development Validation Verification	-	-	-	-	-	-	-	-	-	-	-	6.000	-	-	-	-	-	6.000
System Engineering/ Program Management	-	-	8.069	-	-	1.753	-	-	2.896	-	-	4.662	-	-	-	-	-	4.662
Fielding	-	-	25.831	-	-	1.852	-	-	3.115	-	-	2.766	-	-	0.700	-	-	3.466
Subtotal: Recurring Cost	-	-	*299.463*	-	-	*3.605*	-	-	*6.011*	-	-	*14.048*	-	-	*0.700*	-	-	*14.748*
Subtotal: Flyaway Cost	**-**	**-**	***299.463***	**-**	**-**	***3.605***	**-**	**-**	***6.011***	**-**	**-**	***14.048***	**-**	**-**	***0.700***	**-**	**-**	***14.748***
Hardware Cost																		
Recurring Cost																		
Hardware - HMEE (I) Un-armored System (A Kit)(†)	-	-	-	376.844	45	16.958	-	-	-	400.000	80	32.000	-	-	-	400.000	80	32.000
Hardware - HMEE (I) Armored System (B Kit)(†)	-	-	-	-	-	-	460.000	131	60.260	-	-	-	500.000	50	25.000	500.000	50	25.000

Exhibit P-5, Cost Analysis: PB 2019 Army		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 50	**P-1 Line Item Number / Title:** 7495R05901 / High Mobility Engineer Excavator (HMEE)	**Item Number / Title [DODIC]:** R05900 / High Mobility Engineer Excavator (HMEE) Type 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 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 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)
Subtotal: Recurring Cost	-	-	-	-	-	*16.958*	-	-	*60.260*	-	-	*32.000*	-	-	*25.000*	-	-	*57.000*
Subtotal: Hardware Cost	**-**	**-**	**-**	**-**	**-**	***16.958***	**-**	**-**	***60.260***	**-**	**-**	***32.000***	**-**	**-**	***25.000***	**-**	**-**	***57.000***
Gross/Weapon System Cost	**99,821.000**	**3**	**299.463**	**456.956**	**45**	**20.563**	**505.885**	**131**	**66.271**	**575.600**	**80**	**46.048**	**514.000**	**50**	**25.700**	**551.908**	**130**	**71.748**

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Army	Quantity	43	15	23	50	73
	Total Obligation Authority	19.373	8.064	14.039	25.700	39.739
ANG	Quantity	1	58	29	-	29
	Total Obligation Authority	0.600	29.104	16.262	-	16.262
AR	Quantity	1	58	28	-	28
	Total Obligation Authority	0.590	29.103	15.747	-	15.747
Total: Secondary Distribution	**Quantity**	**45**	**131**	**80**	**50**	**130**
	Total Obligation Authority	**20.563**	**66.271**	**46.048**	**25.700**	**71.748**

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2019 Army	P-1 Line Item Number / Title: 7495R05901 / High Mobility Engineer Excavator (HMEE)	Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 50		Item Number / Title [DODIC]: R05900 / High Mobility Engineer Excavator (HMEE) Type I

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 - HMEE (I) Un-armored System (A Kit)(†)		2017	JCB / Pooler, GA	C / FFP	TACOM	Sep 2017	Mar 2018	45	376.840	N		
Hardware - HMEE (I) Armored System (B Kit)		2018	TBD / TBD	C / FFP	TACOM	Feb 2018	Aug 2018	131	460.000	N		

(†) indicates the presence of a P-21

Exhibit P-21, Production Schedule: PB 2019 Army		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 50	**P-1 Line Item Number / Title:** 7495R05901 / High Mobility Engineer Excavator (HMEE)	**Item Number / Title [DODIC]:** R05900 / High Mobility Engineer Excavator (HMEE) Type I

Cost Elements (Units in Each)							Fiscal Year 2017												Fiscal Year 2018												
										Calendar Year 2017														Calendar Year 2018									
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2016	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	BALANCE
Hardware - HMEE (I) Un-armored System (A Kit)																															
	1	2017	ARMY	45	0	45												A -	-	-	-	-	-	6	6	6	6	6	6	6	3
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2019 Army		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 50	**P-1 Line Item Number / Title:** 7495R05901 / High Mobility Engineer Excavator (HMEE)	**Item Number / Title [DODIC]:** R05900 / High Mobility Engineer Excavator (HMEE) Type I

Cost Elements (Units in Each)							Fiscal Year 2019												Fiscal Year 2020												BALANCE
										Calendar Year 2019														Calendar Year 2020									
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2018	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
Hardware - HMEE (I) Un-armored System (A Kit)																														
	1	2017	ARMY	45	42	3	3																								0
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2019 Army		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 50	**P-1 Line Item Number / Title:** 7495R05901 / High Mobility Engineer Excavator (HMEE)	**Item Number / Title [DODIC]:** R05900 / High Mobility Engineer Excavator (HMEE) Type I

MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Month)			Procurement Leadtime (Months)							
					Initial				Reorder			
		MSR For 2019	1-8-5 For 2019	MAX For 2019	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 - Pooler, GA	6	10	20	0	19	4	23	0	7	4	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).

Exhibit P-40, Budget Line Item Justification: PB 2019 Army	Date: February 2018
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):	**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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	139	76	23	1	-	1	1	19	46	115	-	420
Gross/Weapon System Cost *($ in Millions)*	13.365	2.779	2.563	0.980	-	0.980	0.979	3.557	9.819	18.037	-	52.079
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	13.365	2.779	2.563	0.980	-	0.980	0.979	3.557	9.819	18.037	-	52.079
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**13.365**	**2.779**	**2.563**	**0.980**	**-**	**0.980**	**0.979**	**3.557**	**9.819**	**18.037**	**-**	**52.079**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost *($ in Thousands)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Thousands)*	96.151	36.566	111.435	980.000	-	980.000	979.000	187.211	213.457	156.843	-	123.998

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/Debarkation (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 will be procured by Product Director Combat Terrain Information Systems (PD CTIS).

ERACC Type II, Enhanced Earthmoving. 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 Earthmover (DEUCE). The Grade Control System with automatic blade control significantly increases operating productivity and training efficiencies by reducing construction times and fuel consumption. A project design can be loaded into the blade leveling display box allowing the operator to have 3-D view of where he is in relation to the project end state. This allows the operator to instantly know where to fill and cut and thus eliminates the requirement for the survey team to repetitively verify the project. The fielding of the Enhanced Earthmoving will be within Engineer Support Company, Engineer Support Teams, and to Rapidly Deployable Earthmoving-Light (RDE-L) Platoons, an integral asset of the Engineer Support Companies. The AAO for the Type II 342 will be procured by PM Combat Engineer/Material Handling Equipment (CE/MHE).

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 Droppable (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 will be procured by PM CE/MHE.

Exhibit P-40, Budget Line Item Justification: PB 2019 Army	Date: February 2018
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):	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A

Line Item MDAP/MAIS Code: N/A

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 onboard 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 Earthmoving-Light (RDE-L) Platoon within the Engineer Support Company (ESC), Engineer Survey and Design Sections, Engineer Geospatial Cells, Forward Engineer Support Teams, and Technical Engineer Sections. The ERACC Type IV AAO is 31 and will be procured by PM CE/ MHE.

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023
Army	Quantity	25	10	1	-	1	1	10	10	36
	Total Obligation Authority	0.810	1.120	0.980	-	0.980	0.979	2.507	3.782	7.208
ANG	Quantity	26	11	-	-	-	-	5	27	64
	Total Obligation Authority	1.125	1.221	-	-	-	-	0.550	4.978	8.292
AR	Quantity	25	2	-	-	-	-	4	9	15
	Total Obligation Authority	0.844	0.222	-	-	-	-	0.500	1.059	2.537
Total: Secondary Distribution	**Quantity**	**76**	**23**	**1**	**-**	**1**	**1**	**19**	**46**	**115**
	Total Obligation Authority	**2.779**	**2.563**	**0.980**	**-**	**0.980**	**0.979**	**3.557**	**9.819**	**18.037**

Justification:
FY 2019 Base Procurement dollars in the amount of $0.980 million for the procurement, installation and fielding of non B-kit items, rapid construction and/or expansion of airfield operating capacities in support of ERACC Type II mission requirements. FY 2019 Base Procurement supports a balanced investment strategy for the Army's approved force structure and Army Force Generation (ARFORGEN) requirements, as well as, funds all associated Program Management costs.

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 components and reserve components of the Armed Forces for homeland defense missions, domestic emergency responses, and providing military support to civil authorities.

Exhibit P-40, Budget Line Item Justification: PB 2019 Army	Date: February 2018
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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	220	69	86	189	-	189	176	105	39	34	-	918
Gross/Weapon System Cost *($ in Millions)*	374.237	15.338	19.032	37.017	-	37.017	35.790	22.249	24.950	23.382	-	551.995
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	374.237	15.338	19.032	37.017	-	37.017	35.790	22.249	24.950	23.382	-	551.995
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**374.237**	**15.338**	**19.032**	**37.017**	**-**	**37.017**	**35.790**	**22.249**	**24.950**	**23.382**	**-**	**551.995**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost *($ in Thousands)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Thousands)*	1,701.077	222.290	221.302	195.857	-	195.857	203.352	211.895	639.744	687.706	-	601.302

Description:

The Construction Equipment (CE) budget line funds the Service Life Extension Program (SLEP) across the Construction Equipment/Combat Engineer portfolio and supports the Engineer Strategy by extending current construction capability to bridge the gap until new procurements. The SLEP candidates include the Deployable Universal Combat Earthmover (DEUCE), Dual Steel Wheel Roller (DSWR), High Speed Compactors (HSC), Vibratory Rollers, All Terrain Crane (ATEC), Hydraulic Excavator (HYEX), Scraper 613C, 7.5T Crane, D7-G Dozer, Engineer Mission Module (EMM) and select components of the Asphalt Mixing Plant (AMP). The CE SLEP is a commercial off the shelf program (COTS).

The 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 SLEP Army Acquisition Objective (AAO) for DEUCE is 214 systems.

The Dual Steel Wheel Roller 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 SLEP AAO for DSWR is 39 systems.

The High Speed Compactor 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. The SLEP AAO for HSC is 152 systems.

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 combined AAO for Vibratory Rollers Type I and Type III is 88. The SLEP AAO for Vibratory Rollers Type II is 393 systems.

The All Terrain Crane is a hydraulic, all terrain crane capable of traveling over primary, secondary and off road surfaces at the tactical support level. Technical characteristics include: diesel engine, power shift transmission, three mode steering, independently controlled hydraulic outriggers and a 70 foot telescoping boom. The ATEC supports construction, maintenance bridging and resupply activities. The SLEP AAO for ATEC is 215 systems; in addition the Armor Kit requirement is 29.

The Hydraulic Excavator Type I, II and III is a commercial item of construction equipment with minor military modifications. It is a diesel-driven, self-propelled, track mounted, hydraulically controlled system equipped with a hydraulic quick disconnect coupler for use with a wide variety of attachments. The SLEP AAO for HYEX Type I is 189 systems.

Exhibit P-40, Budget Line Item Justification: PB 2019 Army		Date: February 2018
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 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 SLEP AAO for Scraper (613C) is 210 systems.

The 7.5T Crane is used primarily in light cargo handling units where mobility is required. It is capable of safe operation in explosive environments at Ammunition and Petroleum, Oil, and Lubricant supply points and can be used by ordnance companies, petroleum platoons and maintenance battalions. The SLEP AAO for 7.5T Crane SLEP is 232 systems and is only to fulfill PEO Aviation requirements.

The Engineer Mission Module, Water Distributor is one of four Engineer Mission Modules which are demountable, systems capable of repeated transport, operation and use with Load Handling systems (LHS) type trucks and associated trailers. The four EMMs are the EMM-Dump Body (DB), EMM-Concrete Module (CM), EMM-Bituminous Distributor (BD) and EMM-Water Distributor (WD). The SLEP AAO for EMM is 302 systems.

The Asphalt Mixing Plant is a portable drum type, electric motor driven facility, capable of self erection (major components), and satisfactory operation without requiring permanent type footings. It consists of major units, components and accessories as required to assemble a complete plant capable of producing 150 tons per hour of graded asphalt paving mix. These units are trailer mounted and can be interconnected mechanically and electrically, and operated to rated capacity. The SLEP AAO for AMP is 2 systems.

Exhibit P-40, Budget Line Item Justification: PB 2019 Army	Date: February 2018
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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 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		220 / 374.237	69 / 15.338	86 / 19.032	189 / 37.017	- / -	189 / 37.017
P-40	**Total Gross/Weapon System Cost**				**220 / 374.237**	**69 / 15.338**	**86 / 19.032**	**189 / 37.017**	**- / -**	**189 / 37.017**

*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 2019 Base procurement dollars in the amount of $37.125 million provides refurbishment of approximately 165 vehicles consisting of the ATEC Crane, Vibratory Rollers I/III and II, 7.5 Ton Crane, EMM Pilot, and Compaction Equipment. The Construction Equipment (CE) Service Life Extension Program (SLEP) is the engineer's lifeline to sustain the current force. The SLEP is critical to maintaining engineer unit's operational readiness standards by extending the life of many different CE vehicles by 10-15 years. It returns vehicles to the field with zero hours and zero miles with a manufacturer new vehicle warranty of 18 months. This program lowers the Army's operation and support costs normally associated with aged equipment. The SLEP is conducted at government and contractor facilities worldwide to include Germany, Italy, Korea, Kuwait, and the USA.

This program is considered a Critical Dual Use (CDU) system enabling and supporting Defense Support to Civil Authorities (DSCA) operations.

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.

Exhibit P-5, Cost Analysis: PB 2019 Army		Date: February 2018
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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Procurement Quantity *(Units in Each)*	220	69	86	189	-	189
Gross/Weapon System Cost *($ in Millions)*	374.237	15.338	19.032	37.017	-	37.017
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	374.237	15.338	19.032	37.017	-	37.017
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**374.237**	**15.338**	**19.032**	**37.017**	**-**	**37.017**
(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)*	1,701.077	222.290	221.302	195.857	-	195.857

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

Cost Elements	Prior Years			FY 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 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 -- DEUCE	346.964	166	57.596	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hardware -- Compaction Equipment(†)	219.226	62	13.592	162.320	25	4.058	-	-	-	-	-	-	-	-	-	-	-	-
Engineering Changes	-	-	10.664	-	-	-	-	-	1.860	-	-	0.100	-	-	-	-	-	0.100
System Engineering/ Program Management	-	-	37.129	-	-	2.220	-	-	1.903	-	-	1.560	-	-	-	-	-	1.560
Data	-	-	17.150	-	-	-	-	-	1.500	-	-	0.500	-	-	-	-	-	0.500
Fielding	-	-	233.467	-	-	0.236	-	-	1.250	-	-	3.011	-	-	-	-	-	3.011
Subtotal: Recurring Cost	-	-	*369.598*	-	-	*6.514*	-	-	*6.513*	-	-	*5.171*	-	-	-	-	-	*5.171*
Subtotal: Flyaway Cost	**-**	**-**	***369.598***	**-**	**-**	***6.514***	**-**	**-**	***6.513***	**-**	**-**	***5.171***	**-**	**-**	**-**	**-**	**-**	***5.171***
Hardware Cost																		
Recurring Cost																		
DSWR(†)	-	-	-	183.500	8	1.468	135.000	21	2.835	140.500	2	0.281	-	-	-	140.500	2	0.281
HSC(†)	-	-	-	-	-	-	114.000	21	2.394	175.281	32	5.609	-	-	-	175.281	32	5.609
Vibe Roller I/III(†)	103.556	18	1.864	130.833	6	0.785	109.200	15	1.638	113.647	17	1.932	-	-	-	113.647	17	1.932
Vibe Roller II(†)	132.143	21	2.775	132.259	27	3.571	134.880	25	3.372	140.340	100	14.034	-	-	-	140.340	100	14.034
ATEC(†)	-	-	-	-	-	-	570.000	4	2.280	570.000	7	3.990	-	-	-	570.000	7	3.990
7.5 T Crane(†)	-	-	-	1,000.000	3	3.000	-	-	-	200.000	30	6.000	-	-	-	200.000	30	6.000
Subtotal: Recurring Cost	-	-	*4.639*	-	-	*8.824*	-	-	*12.519*	-	-	*31.846*	-	-	-	-	-	*31.846*

Exhibit P-5, Cost Analysis: PB 2019 Army		Date: February 2018
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:

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

Cost Elements	Prior Years			FY 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 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)
Subtotal: Hardware Cost	-	-	***4.639***	-	-	***8.824***	-	-	***12.519***	-	-	***31.846***	-	-	-	-	-	***31.846***
Gross/Weapon System Cost	**1,701.077**	**220**	**374.237**	**222.290**	**69**	**15.338**	**221.302**	**86**	**19.032**	**195.857**	**189**	**37.017**	-	-	-	**195.857**	**189**	**37.017**

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2019 Army		Date: February 2018
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	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 -- Compaction Equipment		2017	Caterpillar / Peoria, IL	Option / FFP	Warren, MI	Apr 2017	Oct 2017	25	162.320			
DSWR		2017	Caterpillar / Peoria, IL	Option / FFP	Warren, MI	Apr 2017	Apr 2018	8	183.500			
DSWR		2018	Caterpillar / Peoria, IL	Option / FFP	Warren, MI	Jan 2018	Jan 2019	21	135.000			
DSWR		2019	Caterpillar / Peoria, IL	Option / FFP	Warren, MI	Jan 2019	Jan 2020	2	140.500			
HSC		2018	Caterpillar / Peoria, IL	Option / FFP	Warren, MI	Feb 2018	Aug 2018	21	114.000			
HSC		2019	Caterpillar / Peoria, IL	Option / FFP	Warren, MI	Feb 2019	Aug 2019	32	175.280			
Vibe Roller I/III		2017	Caterpillar / Peoria, IL	Option / FFP	Warren, MI	Apr 2017	Oct 2017	6	130.830			
Vibe Roller I/III		2018	Caterpillar / Peoria, IL	Option / FFP	Warren, MI	Feb 2018	Aug 2018	15	109.200			
Vibe Roller I/III		2019	Caterpillar / Peoria, IL	Option / FFP	Warren, MI	Feb 2019	Aug 2019	17	113.650			
Vibe Roller II		2017	Caterpillar / Peoria, IL	Option / FFP	Warren, Mi	Apr 2017	Aug 2017	27	132.260			
Vibe Roller II		2018	Caterpillar / Peoria, IL	Option / FFP	Warren, MI	Feb 2018	Aug 2018	25	134.880			
Vibe Roller II		2019	Caterpillar / Peoria, IL	Option / FFP	Warren, MI	Feb 2019	Aug 2019	100	140.340			
ATEC		2018	TBD / TBD	C / TBD	TBD	Apr 2018	Apr 2018	4	570.000			
ATEC		2019	TBD / TBD	C / TBD	TBD	Jan 2019	Jan 2020	7	570.000			
7.5 T Crane		2017	TBD / TBD	C / TBD	TBD	Apr 2018	Apr 2019	3	1,000.000			
7.5 T Crane		2019	TBD / TBD	C / TBD	TBD	Feb 2019	Feb 2020	30	200.000			

Remarks:
This is a Commercial-Off-the-Shelf (COTS) Program.

Exhibit P-40, Budget Line Item Justification: PB 2019 Army	Date: February 2018
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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	28	5	29	37	-	37	29	-	7	7	-	142
Gross/Weapon System Cost *($ in Millions)*	129.662	8.075	6.899	6.103	-	6.103	4.381	-	1.410	1.410	-	157.940
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	129.662	8.075	6.899	6.103	-	6.103	4.381	-	1.410	1.410	-	157.940
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**129.662**	**8.075**	**6.899**	**6.103**	**-**	**6.103**	**4.381**	**-**	**1.410**	**1.410**	**-**	**157.940**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost *($ in Thousands)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Thousands)*	4,630.786	1,615.000	237.897	164.946	-	164.946	151.069	-	201.429	201.429	-	1,112.254

Description:

The Construction Equipment (CE) Items less than $5.0M supports various Programs of Record (POR) 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:

1. 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) is a highly mobile, self-contained, spray injection asphalt patcher built on an M1077 flat rack. It 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) supports rapid route repair in support of assured mobility and airfield damage repairs. AAO is 62 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) is a telescoping, high-powered mowing attachment mounted on a 966H, Wheeled Loader to rapidly remove ground cover and foliage. The MPMS system consists of a 60-inch mower head attachment, a 4-blade saw, and a ditching attachment. MPMS is interoperable with the armored and non-armored polycarbonate windowed variants of the 966H Wheeled Loader, and is transported via M916 and M870 while attached to the machine. AAO is 66 systems.

2. Water Well Drilling Rig (WWDR) is a four piece system consisting of a self-propelled drilling rig, support/tender truck, a mud trailer and an air compressor trailer. The WWDR produces water where surface or commercial sources do not exist. The drilling rig is a hydraulic, top-head driven unit with a telescoping mast capable of employing a standard 20 feet 8 inch drill steel string to a depth of 2000 feet. The rig carries the initial 500 feet of drill steel. The support/tender truck has a 2500-gallon water tank, an auxiliary 500-gallon fuel tank, a crane, and the capacity to carry 1500 feet in additional drill steel. The air compressor trailer is utilized for drilling and retrieving drill steel based upon geographical situations. The mud trailer contains a mixing/cleaning system. AAO is 8 systems.

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023
Army	Quantity	3	-	-	-	-	2	-	3	3
	Total Obligation Authority	0.894	-	-	-	-	0.900	-	0.500	0.500
ANG	Quantity	2	21	23	-	23	11	-	3	3
	Total Obligation Authority	7.181	5.200	4.630	-	4.630	1.278	-	0.500	0.500

Exhibit P-40, Budget Line Item Justification: PB 2019 Army		Date: February 2018
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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023
AR	Quantity	-	8	14	-	14	16	-	1	1
	Total Obligation Authority	-	1.699	1.473	-	1.473	2.203	-	0.410	0.410
Total: Secondary Distribution	**Quantity**	**5**	**29**	**37**	**-**	**37**	**29**	**-**	**7**	**7**
	Total Obligation Authority	**8.075**	**6.899**	**6.103**	**-**	**6.103**	**4.381**	**-**	**1.410**	**1.410**

Exhibit P-40, Budget Line Item Justification: PB 2019 Army	Date: February 2018
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	

Exhibits Schedule					Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 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	ML5350 / Items Less Than $5.0M (Const Equip)	P-5a	A		28 / 129.662	5 / 8.075	29 / 6.899	37 / 6.103	- / -	37 / 6.103
P-40	**Total Gross/Weapon System Cost**				**28 / 129.662**	**5 / 8.075**	**29 / 6.899**	**37 / 6.103**	**- / -**	**37 / 6.103**

*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 2019 Base procurement dollars in the amount of $6.103 million supports the procurement of 37 Route Remediation systems. Funding activities also include Engineering Change Proposals (ECPs), Technical Manuals, Support Equipment, Fielding, Training, and Program Management Support costs.

The FY 2019 funding request was reduced for $ .686 million to account for the availability of prior year execution balances

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.

Exhibit P-5, Cost Analysis: PB 2019 Army		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 50	**P-1 Line Item Number / Title:** 9462ML5350 / Items Less Than $5.0M (Const Equip)	**Item Number / Title [DODIC]:** ML5350 / Items Less Than $5.0M (Const Equip)
ID Code (A=Service Ready, B=Not Service Ready) : A		**MDAP/MAIS Code:**

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Procurement Quantity *(Units in Each)*	28	5	29	37	-	37
Gross/Weapon System Cost *($ in Millions)*	129.662	8.075	6.899	6.103	-	6.103
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	129.662	8.075	6.899	6.103	-	6.103
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**129.662**	**8.075**	**6.899**	**6.103**	**-**	**6.103**
(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)*	4,630.786	1,615.000	237.897	164.946	-	164.946

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

Cost Elements	Prior Years			FY 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 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	-	-	-	-	-	-	-	-	1.221	-	-	-	-	-	-	-	-	-
System Engineering/ Program Management	-	-	20.586	-	-	0.727	-	-	0.690	-	-	0.315	-	-	-	-	-	0.315
System Test and Evaluation, Production	-	-	20.964	-	-	0.446	-	-	-	-	-	-	-	-	-	-	-	-
Data	-	-	22.718	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Support Equipment	-	-	13.505	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fielding	-	-	18.732	-	-	-	-	-	0.561	-	-	1.928	-	-	-	-	-	1.928
Subtotal: Recurring Cost	-	-	*96.505*	-	-	*1.173*	-	-	*2.472*	-	-	*2.243*	-	-	-	-	-	*2.243*
Subtotal: Flyaway Cost	**-**	**-**	***96.505***	**-**	**-**	***1.173***	**-**	**-**	***2.472***	**-**	**-**	***2.243***	**-**	**-**	**-**	**-**	**-**	***2.243***
Hardware Cost																		
Recurring Cost																		
Paving Machine, Bituminous Material	1,361.000	5	6.805	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Water Well Drilling System(†)	3,200.000	5	16.000	3,451.000	2	6.902	-	-	-	-	-	-	-	-	-	-	-	-
Tester, Container Measurement Moisture Density	27.000	6	0.162	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Exhibit P-5, Cost Analysis: PB 2019 Army		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 50	**P-1 Line Item Number / Title:** 9462ML5350 / Items Less Than $5.0M (Const Equip)	**Item Number / Title [DODIC]:** ML5350 / Items Less Than $5.0M (Const 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 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 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)
Machine Powered Mowing System	200.000	16	3.200	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Portable Concrete Mixers(†)	127.091	55	6.990	-	-	-	138.938	16	2.223	138.957	23	3.196	-	-	-	138.957	23	3.196
Self-Propelled Concrete Saw(†)	-	-	-	-	-	-	32.000	47	1.504	32.000	12	0.384	-	-	-	32.000	12	0.384
Portable Asphalt Patcher(†)	-	-	-	-	-	-	140.000	5	0.700	140.000	2	0.280	-	-	-	140.000	2	0.280
Subtotal: Recurring Cost	-	-	*33.157*	-	-	*6.902*	-	-	*4.427*	-	-	*3.860*	-	-	-	-	-	*3.860*
Subtotal: Hardware Cost	**-**	**-**	***33.157***	**-**	**-**	***6.902***	**-**	**-**	***4.427***	**-**	**-**	***3.860***	**-**	**-**	**-**	**-**	**-**	***3.860***
Gross/Weapon System Cost	**4,630.786**	**28**	**129.662**	**1,615.000**	**5**	**8.075**	**237.897**	**29**	**6.899**	**164.946**	**37**	**6.103**	**-**	**-**	**-**	**164.946**	**37**	**6.103**

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Army	Quantity	3	-	-	-	-
	Total Obligation Authority	0.894	-	-	-	-
ANG	Quantity	2	21	23	-	23
	Total Obligation Authority	7.181	5.200	4.630	-	4.630
AR	Quantity	-	8	14	-	14
	Total Obligation Authority	-	1.699	1.473	-	1.473
Total: Secondary Distribution	**Quantity**	**5**	**29**	**37**	**-**	**37**
	Total Obligation Authority	**8.075**	**6.899**	**6.103**	**-**	**6.103**

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2019 Army		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 50	P-1 Line Item Number / Title: 9462ML5350 / Items Less Than $5.0M (Const Equip)	Item Number / Title [DODIC]: ML5350 / Items Less Than $5.0M (Const Equip)

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
Water Well Drilling System		2017	Laibe Corporation / Indianapolis, IN	SS / FFP	Warren, MI	Nov 2017	Oct 2018	2	3,451.000	Y		
Portable Concrete Mixers		2018	Brothers Body and Equipment / Galion, OH	SS / FFP	Warren, MI	Jan 2018	Jun 2018	16	138.940	Y		
Portable Concrete Mixers		2019	Brothers Body and Equipment / Galion, OH	SS / FFP	Warren, MI	Jan 2019	Jun 2019	23	138.960	Y		
Self-Propelled Concrete Saw		2018	TBD / TBD	SS / FFP	Warren, MI	Jan 2018	Jun 2018	47	32.000	Y		
Self-Propelled Concrete Saw		2019	TBD / TBD	SS / FFP	Warren, MI	Jan 2019	Jun 2020	12	32.000	Y		
Portable Asphalt Patcher		2018	TBD / TBD	SS / FFP	Warren, MI	Apr 2018	Oct 2018	5	140.000	Y		
Portable Asphalt Patcher		2019	TBD / TBD	SS / FFP	Warren, MI	Jan 2019	Jun 2019	2	140.000	Y		

Remarks:
These items are being procured as Commercial-off-the-Shelf (COTS) systems.

Exhibit P-40, Budget Line Item Justification: PB 2019 Army	Date: February 2018
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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	2	2	2	3	-	3	6	10	9	9	-	43
Gross/Weapon System Cost *($ in Millions)*	43.281	21.860	20.110	27.711	-	27.711	36.933	46.100	40.957	38.330	-	275.282
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	43.281	21.860	20.110	27.711	-	27.711	36.933	46.100	40.957	38.330	-	275.282
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**43.281**	**21.860**	**20.110**	**27.711**	**-**	**27.711**	**36.933**	**46.100**	**40.957**	**38.330**	**-**	**275.282**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost *($ in Thousands)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Thousands)*	21,640.500	10,930.000	10,055.000	9,237.000	-	9,237.000	6,155.500	4,610.000	4,550.778	4,258.889	-	6,401.907

Description:

The Army Watercraft Extended Service Program (ESP) budget line funds the Service Life Extension Programs (SLEP) across the Army Watercraft Systems portfolio. During FY 2016 - FY 2025 specifically, the Army Watercraft ESP budget line will fund the Army Landing Craft Utility 2000 (LCU-2000), a globally dispersed fleet of 34 vessels, and will serve to extend the current Economic Useful Life (EUL) of this platform by 10 years; bridging the gap until the procurement of a replacement vessel. 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), such as Engine Repower, power generation, force protection and habitability. 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 effected by SLEP.

The Army Watercraft ESP budget line will also fund the SLEP of the Modular Causeway System (MCS), specifically the Modular Warping Tug (MWT) and Causeway Ferry (CF). The MWT/CF SLEP will extend the economic useful life of the MWT and CF to FY 2040 and bridge the gap between the current MCS and the Future MCS projected to begin production in FY 2042 per the Transportation Portfolio Strategic Portfolio Analysis Review (SPAR 20). The MWT is used to assist in the assembly, movement, and positioning of MCS and the CF is used to transfer containers from containerships directly to the beach.

The Army Watercraft ESP budget line also supports modernized bridge or pilot house configuration efforts which serve to maintain the ability to communicate, navigate as well as maintain situational awareness worldwide in both a joint as well as commercial maritime environment. As the refresh on this technology is as little as two years, unless the capability is continuously updated and maintained, the safety of the vessel and its crew as well as its ability to support the combatant commanders is at great risk. The LCU 2000 and LSV 1 class are the current applications of vessel specific modernized communication packages. This line will also include the future SLEP activities of fleet wide modifications consisting of: Landing Craft consist of 8 Logistic Support Vessels (LSV), 34 Landing Craft Utility 2000 (LCU-2000), 30 Landing Craft Mechanized 8 (LCM-8) MOD 1, and 6 LCM-8 MOD 2 (Watercraft Operations Support). Towing and Terminal Operations consist of 6 Large Tug 800 (LT-800), 16 Small Tug 900 (ST-900), and 4 Barge Derrick Crane 115-ton (BD-115). Ship-to-Shore Enablers consist of 3 Modular Causeway Systems (MCS) [each MCS includes 2 Roll-On/Roll-Off Discharge Facilities (RRDF), 5 Modular Warping Tugs (MWT), 1 Causeway Ferry (CF), 1 Floating Causeway (FC)]. Landing Craft discharge combat equipment or troops to austere beaches, undeveloped coastlines and operate in a non-permissive environment. Towing and Terminal Operations and Ship-to-Shore Enablers support ocean and port/harbor towing/salvage operations. Both are critical in denied/degraded ports, Joint Logistics Over-the-Shore (JLOTS) operations, and operations throughout the littorals.

Exhibit P-40, Budget Line Item Justification: PB 2019 Army	Date: February 2018
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

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. Vessel lethality/ Escalation of Force measures have increasingly become an area of vital concern to the Combatant Commanders (CCDR) given the requirement to preserve "freedom of the seas" access in all areas of the world, particularly the littorals, to support maneuver operations in all Areas of Responsibility.

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, domestics emergency responses, and providing military support to civil authorities.

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023
Army	Quantity	1	2	2	-	2	3	5	9	9
	Total Obligation Authority	10.797	20.110	17.735	-	17.735	15.872	25.355	40.957	38.330
AR	Quantity	1	-	1	-	1	3	5	-	-
	Total Obligation Authority	11.063	-	9.976	-	9.976	21.061	20.745	-	-
Total: Secondary Distribution	**Quantity**	**2**	**2**	**3**	**-**	**3**	**6**	**10**	**9**	**9**
	Total Obligation Authority	**21.860**	**20.110**	**27.711**	**-**	**27.711**	**36.933**	**46.100**	**40.957**	**38.330**

Exhibit P-40, Budget Line Item Justification: PB 2019 Army	Date: February 2018
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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 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			2 / 43.281	2 / 21.860	2 / 20.110	3 / 27.711	- / -	3 / 27.711
P-40	**Total Gross/Weapon System Cost**				**2 / 43.281**	**2 / 21.860**	**2 / 20.110**	**3 / 27.711**	**- / -**	**3 / 27.711**

*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 2019 Base procurement dollars in the amount of $20.186 million supports a quantity of 2 vessels for the Landing Craft Utility 2000 (LCU-2000) and Program Management/Matrix Support for the fiscal year. The LCU-2000 SLEP modification package will make improvements to all engines, power generators and the application of Engineering Change Proposals (ECPs) which focus on modernization and technology insertion; these efforts are not covered under the Modification of In-Service Equipment appropriation. Furthermore, 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 effected by SLEP. Program Management/Matrix Support includes the Program Management, Logistics and System Engineering oversight required to manage the program and provide contractor oversight. Salaries, benefits, travel, personnel training and other Government costs are included for retaining a professional acquisition workforce. The LCU-2000 SLEP is performed in conjunction with the vessels' statutorily required On-Condition Cyclic Maintenance (OCCM), which is funded with Operations and Maintenance, Army (OMA) dollars.

FY 2019 Base procurement dollars in the amount of $3.145 million supports a quantity of 1 vessel for the Modular Causeway System (MCS) Service Life Extension Programs (SLEP). The Modular Causeway System (MCS) SLEP production will resolve engine, electrical, and deck winch sustainment issues in the Modular Warping Tug (MWT) through modification during OCCM. The MCS SLEP production will leverage the Technical Data Package (TDP) developed under the RDTE 526 funding line.

FY 2019 Base procurement dollars in the amount of $4.380 million supports the Integrated Bridge Systems (IBS) effort for the LCU-2000. This bridge configuration effort provides the LCU 2000 the critical ability to communicate, navigate as well as maintain situational awareness worldwide in both a joint as well as commercial maritime environment. Multi-domain system and equipment are integrated to display required navigation at all operator positions to support seamless, efficient and safe operations for any 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.

Exhibit P-5, Cost Analysis: PB 2019 Army		Date: February 2018
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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Procurement Quantity *(Units in Each)*	2	2	2	3	-	3
Gross/Weapon System Cost *($ in Millions)*	43.281	21.860	20.110	27.711	-	27.711
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	43.281	21.860	20.110	27.711	-	27.711
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**43.281**	**21.860**	**20.110**	**27.711**	**-**	**27.711**
(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)*	21,640.500	10,930.000	10,055.000	9,237.000	-	9,237.000

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

Cost Elements	Prior Years			FY 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 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)(†)	-	-	30.645	9,362.500	2	18.725	8,577.500	2	17.155	8,577.500	2	17.155	-	-	-	8,577.500	2	17.155
Bridge Configuration (LCU-2000)	-	-	-	-	-	-	-	-	-	-	-	4.380	-	-	-	-	-	4.380
SLEP Vessels (MCS)(†)	-	-	-	-	-	-	-	-	-	1,945.000	1	1.945	-	-	-	1,945.000	1	1.945
New Equipment Training (NET)	-	-	0.530	-	-	0.530	-	-	0.545	-	-	0.549	-	-	-	-	-	0.549
Technical Manuals	-	-	6.397	-	-	0.320	-	-	0.300	-	-	0.306	-	-	-	-	-	0.306
Program Management/Matrix Support	-	-	5.709	-	-	2.285	-	-	2.110	-	-	2.176	-	-	-	-	-	2.176
(MCS) Other NRE Production	-	-	-	-	-	-	-	-	-	-	-	1.200	-	-	-	-	-	1.200
Subtotal: Recurring Cost	-	-	*43.281*	-	-	*21.860*	-	-	*20.110*	-	-	*27.711*	-	-	-	-	-	*27.711*
Subtotal: Flyaway Cost	**-**	**-**	***43.281***	**-**	**-**	***21.860***	**-**	**-**	***20.110***	**-**	**-**	***27.711***	**-**	**-**	**-**	**-**	**-**	***27.711***
Gross/Weapon System Cost	**21,640.500**	**2**	**43.281**	**10,930.000**	**2**	**21.860**	**10,055.000**	**2**	**20.110**	**9,237.000**	**3**	**27.711**	**-**	**-**	**-**	**9,237.000**	**3**	**27.711**

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Army	Quantity	1	2	2	-	2

Exhibit P-5, Cost Analysis: PB 2019 Army		Date: February 2018
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:**	

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
	Total Obligation Authority	10.797	20.110	17.735	-	17.735
AR	Quantity	1	-	1	-	1
	Total Obligation Authority	11.063	-	9.976	-	9.976
Total: Secondary Distribution	**Quantity**	**2**	**2**	**3**	**-**	**3**
	Total Obligation Authority	**21.860**	**20.110**	**27.711**	**-**	**27.711**

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2019 Army		Date: February 2018
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	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
SLEP Vessels (LCU-2000)(†)		2017	Alion Science and Technology / Burr Ridge, IL	C / FFP	WARREN, MI	Aug 2017	Jan 2018	2	9,362.500	Y		
SLEP Vessels (LCU-2000)(†)		2018	Alion Science and Technology / Burr Ridge, IL	C / FFP	WARREN, MI	Jan 2018	Jun 2018	1	8,577.500	N		
SLEP Vessels (LCU-2000)(†)		2018	TBD 2 / TBD	C / FFP	WARREN, MI	Jun 2019	Dec 2019	1	8,577.500	N		Oct 2018
SLEP Vessels (LCU-2000)(†)		2019	TBD 2 / TBD	C / FFP	WARREN, MI	Sep 2019	Mar 2020	2	8,577.500	N		Mar 2019
SLEP Vessels (MCS)		2019	TBD 2 / TBD	C / FFP	WARREN, MI	Aug 2019	Feb 2020	1	1,945.000	N		Jun 2019

(†) indicates the presence of a P-21

Remarks:

Due to delay of LCU-2000 SLEP Phase I contract award to September 2016, TDP development to inform phase II has been delayed. As a result, the initial contract award for LCU-2000 SLEP Phase II is currently projected for 4th quarter FY 2019. The Landing Craft Utility 2000 (LCU-2000) Service Life Extension Program (SLEP) is planned to be conducted in two phases. The first phase (Phase I) will consist of up to 2 Low Rate Initial Production (LRIP) vessels, and 2 option vessels. LRIP during FY 2016-2018 will be used for SLEP, Engineering Change Proposal (ECP), Technical Data Package (TDP), New Equipment Training (NET) development, Test, Evaluation, Technical Manual (TM) Validation, and TM Verification. The second phase (Phase II) will consist of Full Rate Production (FRP) of LCU-2000 vessels in FY 2019-2026. The SLEP activities will update 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). Lead times are based on previous SLEP contracts for other vessels.

Exhibit P-21, Production Schedule: PB 2019 Army		Date: February 2018
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 (Units in Each)							Fiscal Year 2017												Fiscal Year 2018											BALANCE
							Calendar Year 2017												Calendar Year 2018											
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2016	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
SLEP Vessels (LCU-2000)																														
	1	2017	ARMY	2	0	2											A -	-	-	-	-	1	1								0
	1	2018	ARMY	1	0	1																A -	-	-	-	-	1				0
	2	2018	ARMY	1	0	1																									1
	2	2019	ARMY	2	0	2																									2
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2019 Army		Date: February 2018
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 (Units in Each)							Fiscal Year 2019												Fiscal Year 2020											BALANCE
							Calendar Year 2019												Calendar Year 2020											
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2018	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
SLEP Vessels (LCU-2000)																														
	1	2017	ARMY	2	2	0																								0
	1	2018	ARMY	1	1	0																								0
	2	2018	ARMY	1	0	1									A -	-	-	-	-	-	1									0
	2	2019	ARMY	2	0	2												A -	-	-	-	-	-	1	1					0
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2019 Army		Date: February 2018
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)							
					Initial				Reorder			
		MSR For 2019	1-8-5 For 2019	MAX For 2019	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	Alion Science and Technology - Burr Ridge, IL	1	1	1	0	12	12	24	0	7	6	13
2	TBD 2 - TBD	1	1	1	0	21	6	27	0	7	6	13

Remarks:
Service Life Extension Program (SLEP) modifications are completed at commercial shipyards.

"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).

Exhibit P-40, Budget Line Item Justification: PB 2019 Army	Date: February 2018
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

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	171.526	1.967	2.877	8.385	-	8.385	2.422	1.931	1.943	0.994	-	192.045
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	171.526	1.967	2.877	8.385	-	8.385	2.422	1.931	1.943	0.994	-	192.045
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**171.526**	**1.967**	**2.877**	**8.385**	**-**	**8.385**	**2.422**	**1.931**	**1.943**	**0.994**	**-**	**192.045**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost *($ in Thousands)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Thousands)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

This budget line funds two separate programs. One program supports Float and the other program supports Rail.

The Float program funds hardware and material in support of Army Watercraft Systems. The principle capabilities of Army Watercraft Systems are 1) movement/maneuver and distribution of combat equipment and sustainment material; 2) access to degraded and/or austere ports; 3) seaport operations, to include docking/undocking, firefighting, towing and rescue; 4) ship to shore access to "no port" areas such as austere and remote, bare beaches; and 5) heavy lift in support of damaged seaport and/or vessel repair and salvage.

Army Watercraft Systems are categorized under Landing Craft, Towing and Terminal Operations, Ship-to-Shore Enablers and Watercraft Operations Support. Landing Craft consist of 8 Logistic Support Vessels (LSV), 34 Landing Craft Utility 2000 (LCU-2000), 30 Landing Craft Mechanized 8 (LCM-8) MOD 1, and 6 LCM-8 MOD 2 (Watercraft Operations Support). Towing and Terminal Operations consist of 6 Large Tug 800 (LT-800), 16 Small Tug 900 (ST-900), and 4 Barge Derrick Crane 115-ton (BD-115). Ship-to-Shore Enablers consist of 3 Modular Causeway Systems (MCS) [each MCS includes 2 Roll-On/Roll-Off Discharge Facilities (RRDF), 5 Modular Warping Tugs (MWT), 1 Causeway Ferry (CF), 1 Floating Causeway (FC)]. Landing Craft discharge combat equipment or troops to austere beaches, undeveloped coastlines and operate in a non-permissive environment. Towing and Terminal Operations and Ship-to-Shore Enablers support ocean and port/harbor towing/salvage operations. Both are critical in denied/degraded ports, Joint Logistics Over-the-Shore (JLOTS) operations, and operations throughout the littorals. Rescue Boats with outboard engines to meet Safety-of-Life at Sea (SOLAS) requirements for the Watercraft LSV, LCU-2000, LT-800 and MCS fleet, including cranes, cradles, and davit assemblies (support assemblies).

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 logistically unsupportable assets where current items are in some cases already unserviceable and in other cases, either unsafe or not cleared for use under the Federal Railroad Administration (FRA). Funding has been provided 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, 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 EPA air quality restrictions, and future fuel economy mandates.

Exhibit P-40, Budget Line Item Justification: PB 2019 Army	Date: February 2018
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

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, domestics emergency responses, and providing military support to civil authorities.

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023
Army	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	1.967	2.877	8.385	-	8.385	2.422	1.931	1.943	0.994
Total: Secondary Distribution	**Quantity**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
	Total Obligation Authority	**1.967**	**2.877**	**8.385**	**-**	**8.385**	**2.422**	**1.931**	**1.943**	**0.994**

Exhibit P-40, Budget Line Item Justification: PB 2019 Army	Date: February 2018
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	

Exhibits Schedule					Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 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-40a	MA8900 / ITEMS LESS THAN $5.0M (FLOAT/RAIL)				- / 171.526	- / 1.967	- / 2.877	- / 8.385	- / -	- / 8.385
P-40	**Total Gross/Weapon System Cost**				**- / 171.526**	**- / 1.967**	**- / 2.877**	**- / 8.385**	**- / -**	**- / 8.385**

*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 2019 Base procurement dollars in the amount of $2.385 million supports Army Watercraft Systems for material and/or hardware for modifications to correct safety discrepancies, increase interoperability, extend useful life, improve supportability, increase efficiency, meet new and changing statutory and regulatory requirements. FY 2019 Base procurement dollars in the amount of $6.0 million has also been provided 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, AL. FY 2019 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, benefits, travel, personnel training and other government costs are included for retaining a professional acquisition workforce.

Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Army		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 55	**P-1 Line Item Number / Title:** 9552ML5355 / Items Less Than $5.0M (Float/Rail)	**Aggregated Items Title:** Various

Item Number / Title [DODIC]	ID CD	MDAP/ MAIS Code	Prior Years			FY 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 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)
ITEMS LESS THAN $5.0M (FLOAT/RAIL)																				
MA8900 / ITEMS LESS THAN $5.0M (FLOAT/RAIL)			-	-	171.526	-	-	1.967	-	-	2.877	-	-	8.385	-	-	-	-	-	8.385
Secondary Distribution																				
Army				-	-		-	1.967		-	2.877		-	8.385		-	-		-	8.385
Subtotal: ITEMS LESS THAN $5.0M (FLOAT/RAIL)			**-**	**-**	***171.526***	**-**	**-**	***1.967***	**-**	**-**	***2.877***	**-**	**-**	***8.385***	**-**	**-**	**-**	**-**	**-**	***8.385***
Total			**-**	**-**	**171.526**	**-**	**-**	**1.967**	**-**	**-**	**2.877**	**-**	**-**	**8.385**	**-**	**-**	**-**	**-**	**-**	**8.385**

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

Exhibit P-40, Budget Line Item Justification: PB 2019 Army	Date: February 2018
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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	1,311	2,559	3,193	3,872	15	3,887	5,717	4,705	2,800	2,453	-	26,625
Gross/Weapon System Cost *($ in Millions)*	698.638	132.391	116.204	133.772	0.569	134.341	113.476	88.765	115.703	101.957	-	1,501.475
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	698.638	132.391	116.204	133.772	0.569	134.341	113.476	88.765	115.703	101.957	-	1,501.475
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**698.638**	**132.391**	**116.204**	**133.772**	**0.569**	**134.341**	**113.476**	**88.765**	**115.703**	**101.957**	**-**	**1,501.475**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost *($ in Thousands)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Thousands)*	532.905	51.735	36.393	34.549	37.933	34.562	19.849	18.866	41.323	41.564	-	56.393

Description:

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 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 generators (MIL STD, MTG and TQG, respectively) inventory to meet the Army's requirements and establish the DoD standard for tactical power generation. 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 / PP) and Microgrid configurations, and associated power distribution equipment (Power Distribution Illumination Systems Electrical (PDISE) and the Management and Distribution Control (MDC)). 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.

Management and Distribution Control (MDC), funded with the Improved Power Distribution Illumination Systems Electrical (IPDISE) program element, will be the next generation DoD Mobile Electric Power Distribution System. MDC will support the full spectrum of (low voltage) Tactical Electrical Power (TEP) and (medium voltage) Deployable Prime Power System (DPPS) with advanced features which enable micro-grid and smart-grid power systems, power monitoring, energy storage and incorporation of renewable energy sources. The program will entail a phased development of a Joint power distribution and management family of equipment intended to be the lifecycle replacement for USA PDISE, USMC MEPDIS-R, USAF BEAR AND USN power distribution systems.
MDC AAO = TBD (current PDISE AAO = 23,752); Multiple Input PDU AAO = TBD, PPCK AAO = TBD, M20 AAO = TBD.

Power Distribution Illumination Systems Electrical (PDISE) provides reliable, quick to assemble, modular designed power distribution equipment that is critical to deploying power networks. The PDISE family consists of five different end items, including M200 and M100 feeder systems, M40 and M60 distribution systems and the M46 electrical utility kit. PDISE is simple, reliable, and compatible with DoD generator sets from 5kW to 200kW. It is used to subdivide and distribute electricity from single power sources to multiple equipment users within shelters and various unit complexes, and thus is a critical element of the DoD power structure. PDISE is also critical to Army's transformation by reducing the logistics footprint through the use of centralized power configurations.

Exhibit P-40, Budget Line Item Justification: PB 2019 Army		Date: February 2018
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		

M200 Army Acquisition Objective (AAO) = 247; M100 AAO = 2,188; M60 AAO = 5,763; M40 AAO = 4,155; M46 AAO = 11,399.

The Advanced Medium Mobile Power Sources (AMMPS) program provides mid-range power sources, including the 5 kilowatt (kW), 10kW, 15kW, 30kW, and 60kW Skid Mounted Advanced Medium Mobile Power Sources (AMMPS), which incorporates state-of-the-art commercial technologies that enhance the operational effectiveness and supportability of power sources. Operational effectiveness is improved through reduced noise (increasing survivability), and reduced weight (enhancing deployability, reduced footprint). The logistics footprint has been significantly reduced through improved fuel consumption (15-21% reduction), use of embedded diagnostics and improved maintainability. AMMPS are fully capable of meeting the most rigorous operational requirements providing mobile electric power to our deployed Soldiers, Sailors, Airmen and Marines worldwide.
Army Acquisition Objective (AAO) = 14,593.

Power Units/Mounted (AMMPS): The integration of generator sets on trailers with the electronic components are defined as power units or power plants. 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. The generator sets are procured by competitive contracts through the Army Contracting Command -Aberdeen Proving Ground (APG), Belvoir. The trailers are procured by competitive contracts through the Army Contracting Command - Warren. Set sizes from 5 kilowatt (kW) thru 60kW are mounted in Power Unit/Power Plant (PU/PP) configurations to meet the requirements of the DoD.
Power Units/Power Plants Army Acquisition Objective (AAO) = 15,240; Microgrid AAO = TBD.

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; and the LAMPS Power Distribution Unit (PDU). The LAMPS PDU will replace the M-400 (100 Amp) power distribution panel.
Army Acquisition Objective (AAO): LAMPS = 794, LAMPS PDU = 459.

The Small Tactical Electric Power (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 more mobile, reliable, and logistically supportable power sources than their predecessors for the Department of Defense's (DoD) 21st century digitized forces. STEP 2kW Army Acquisition Objective (AAO) is 5,000; STEP 3kW AAO is 20,000.

Exhibit P-40, Budget Line Item Justification: PB 2019 Army	Date: February 2018
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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 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			- / -	62 / 3.878	44 / 10.179	29 / 1.716	5 / 0.024	34 / 1.740
P-5	R45400 / P-DISE 40-200 AMP				- / 89.427	- / -	- / -	2 / 0.388	- / -	2 / 0.388
P-5	R51050 / Advanced Medium Mobile Power Systems (AMMPS)	P-5a, P-21			- / 35.105	1,728 / 44.262	2,121 / 52.062	2,383 / 60.702	- / -	2,383 / 60.702
P-5	R59210 / Power Units/Mounted (AMMPS)	P-5a, P-21			- / 31.250	639 / 41.763	612 / 36.400	1,370 / 61.051	10 / 0.545	1,380 / 61.596
P-5	R61510 / Large Advanced Mobile Power	P-5a			- / 14.822	130 / 0.351	130 / 16.278	- / 1.976	- / -	- / 1.976
P-5	R62700 / POWER UNITS/POWER PLANTS				1,311 / 524.366	- / 31.761	- / -	- / -	- / -	- / -
P-5	R63510 / Small Tactical Electric Power	P-5a	A		- / 3.668	- / 10.376	286 / 1.285	88 / 7.939	- / -	88 / 7.939
P-40	**Total Gross/Weapon System Cost**				**1,311 / 698.638**	**2,559 / 132.391**	**3,193 / 116.204**	**3,872 / 133.772**	**15 / 0.569**	**3,887 / 134.341**

*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 2019 Base procurement dollars in the amount of $133.772 million supports small, medium and large generator sets, assembly of power units, power plants, and microgrids, and power feeder, distribution 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 Missile/Air Defense Systems; Tactical Operations Centers; Command, Control, Communications, Computers, Intelligence, Surveillance, and Reconnaissance systems; and Brigade Combat Teams (BCTs).

IPDISE (M50202): FY 2019 Base procurement dollars in the amount of $1.716 million is for Management and Distribution Control (MDC). All funding for this line has been moved from SSN R45400 Power Distribution Illumination Systems Electrical (PDISE) 40-200 Amp, SSN R45400, as of FY 2017. PDISE continues fielding to Corps/Division headquarters, Brigade Combat Teams (BCTs), and Support Brigades in support of their combat support systems. MDC will begin production in FY 2018.

PDISE (R45400): FY19 Base procurement dollars in the amount of $0.388 on this budget line should be reflected in the following budget line: IPDISE (M50202).

AMMPS (R51050): FY 2019 Base procurement dollars in the amount of $60.702 million is for the Advanced Medium Mobile Power Sources (AMMPS) 5kW-60kW skid 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 combat support systems. All funding for this line has been moved from Medium Sets, SSN M53500, as of FY 2017.

Power Units/Mounted (AMMPS) (R59210): FY 2019 Base procurement dollars in the amount of $61.051 million supports power units, power plants, and microgrids. The program continues fielding to Corps/ Division headquarters, Brigade Combat Teams (BCT), and Support Brigades in support of their Command, Control, Communications, Computers, Intelligence, Surveillance, Reconnaissance (C4ISR) and combat service support mission. All funding for this line has been moved from POWER UNITS/POWER PLANTS, SSN R62700, as of FY 2017.

LAMPS (R61510): FY 2019 Base procurement dollars in the amount of $1.976 million supports the configuration management of 100kW and 200kW Large Tactical Power and the acquisition of large generator sets and power distribution units. Funds in this program are a realignment of funds from program Large Sets, SSN M54400, as of FY 2017.

Exhibit P-40, Budget Line Item Justification: PB 2019 Army		Date: February 2018
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		

STEP (R63510): FY 2019 Base Procurement dollars in the amount of $7.939 million will continue engineering, and requirements analysis for the STEP 2kW and 3kW variants. STEP production is not scheduled to begin until FY 2025. Funds in this program are a realignment of funds from Small Sets (2-3kW), SSN M59400, as of FY 2017. Funds also support engineering, logistics, part obsolescence, and program management efforts to sustain the 2kW (MTG) and 3kW (TQG) system until STEP fielding (FY26 - FY30).

FY 2019 OCO procurement dollars in the amount of $0.024 million supports the European Deterrence Initiative effort (IPDISE (M50202).

FY 2019 OCO procurement dollars in the amount of $.545 million supports the European Deterrence Initiative effort (Power Units/Mounted (AMMPS) (R59210).

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.

Exhibit P-5, Cost Analysis: PB 2019 Army		Date: February 2018
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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Procurement Quantity *(Units in Each)*	-	62	44	29	5	34
Gross/Weapon System Cost *($ in Millions)*	-	3.878	10.179	1.716	0.024	1.740
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	-	3.878	10.179	1.716	0.024	1.740
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**-**	**3.878**	**10.179**	**1.716**	**0.024**	**1.740**
(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)*	-	62.548	231.341	59.172	4.800	51.176

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

Cost Elements	Prior Years			FY 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 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	-	-	-	-	-	1.384	-	-	1.893	-	-	0.201	-	-	-	-	-	0.201
2. Engineering Change Orders	-	-	-	-	-	0.106	-	-	0.108	-	-	0.020	-	-	-	-	-	0.020
3. Testing	-	-	-	-	-	0.106	-	-	0.108	-	-	0.080	-	-	-	-	-	0.080
4. System Fielding Support	-	-	-	-	-	0.474	-	-	0.539	-	-	0.020	-	-	-	-	-	0.020
5. Systems Assessment	-	-	-	-	-	0.078	-	-	0.079	-	-	0.075	-	-	-	-	-	0.075
6. Logistics Support	-	-	-	-	-	0.735	-	-	0.749	-	-	0.059	-	-	-	-	-	0.059
7. Data	-	-	-	-	-	0.083	-	-	0.078	-	-	0.072	-	-	-	-	-	0.072
8. PM Management Support	-	-	-	-	-	0.912	-	-	1.153	-	-	0.229	-	-	-	-	-	0.229
Multiple Input PDU(†)	-	-	-	-	-	-	35.000	20	0.700	-	-	-	-	-	-	-	-	-
M 40 (Distribution System)(†)	-	-	-	-	-	-	4.249	481	2.044	-	-	-	4.800	5	0.024	4.800	5	0.024
M60 (Distribution System)(†)	-	-	-	-	-	-	6.000	2	0.012	-	-	-	-	-	-	-	-	-
M100 (Feeder System)(†)	-	-	-	-	-	-	5.855	241	1.411	-	-	-	-	-	-	-	-	-

Exhibit P-5, Cost Analysis: PB 2019 Army		Date: February 2018
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 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 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)
M200 (Feeder System)(†)	-	-	-	-	-	-	10.875	120	1.305	33.100	29	0.960	-	-	-	33.100	29	0.960
Subtotal: Recurring Cost	-	-	-	-	-	*3.878*	-	-	*10.179*	-	-	*1.716*	-	-	*0.024*	-	-	*1.740*
Subtotal: Flyaway Cost	**-**	**-**	**-**	**-**	**-**	***3.878***	**-**	**-**	***10.179***	**-**	**-**	***1.716***	**-**	**-**	***0.024***	**-**	**-**	***1.740***
Gross/Weapon System Cost	**-**	**-**	**-**	**62.548**	**62**	**3.878**	**231.341**	**44**	**10.179**	**59.172**	**29**	**1.716**	**4.800**	**5**	**0.024**	**51.176**	**34**	**1.740**

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2019 Army		Date: February 2018
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	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
Multiple Input PDU		2018	TBD / TBD	Option / TBD	TBD	Jun 2018	Dec 2018	20	35.000	Y		
M 40 (Distribution System)		2018	Fidelity Technologies Corp / Reading, PA	C / FFP	ACC-APG, Belvoir	Jan 2018	Jul 2018	481	4.250	Y		
M 40 (Distribution System)	✓	2019	Fidelity Technologies Corp / Reading, PA	C / FFP	ACC-APG, Belvior	Jan 2019	Jul 2019	5	4.800	Y		
M60 (Distribution System)		2018	Fidelity Technologies Corp / Reading, PA	C / FFP	ACC-APG, Belvoir	Jan 2018	Jul 2018	2	6.000	Y		
M100 (Feeder System)		2018	Fidelity Technologies Corp / Reading, PA	C / FFP	ACC-APG, Belvoir	Jan 2018	Jul 2018	241	5.860	Y		
M200 (Feeder System)		2018	Fidelity Technologies Corp / Reading, PA	C / FPIF	ACC-APG, Belvoir	Jan 2018	Jul 2018	120	10.880	Y		
M200 (Feeder System)		2019	Fidelity Technologies Corp / Reading, PA	C / FFP	ACC-APG, Belvior	Jan 2019	Jul 2019	29	33.100	Y		

Exhibit P-5, Cost Analysis: PB 2019 Army		Date: February 2018
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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Procurement Quantity *(Units in Each)*	-	-	-	2	-	2
Gross/Weapon System Cost *($ in Millions)*	89.427	-	-	0.388	-	0.388
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	89.427	-	-	0.388	-	0.388
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**89.427**	**-**	**-**	**0.388**	**-**	**0.388**
(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)*	-	-	-	194.000	-	194.000

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

Cost Elements	Prior Years			FY 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 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. Enginering 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	-	-	-	-	-	-	-	-	0.364	-	-	-	-	-	0.364
M200 (Feeder System)	56.000	2	0.112	-	-	-	-	-	-	12.000	2	0.024	-	-	-	12.000	2	0.024
M100 (Feeder System)	22.053	950	20.950	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
M60 (Distribution System)	14.472	2,252	32.591	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
M 40 (Distribution System)	36.215	100	3.622	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
M46 (Utility Kit)	7.000	1	0.007	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Recurring Cost	-	-	*89.427*	-	-	-	-	-	-	-	-	*0.388*	-	-	-	-	-	*0.388*
Subtotal: Flyaway Cost	**-**	**-**	***89.427***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***0.388***	**-**	**-**	**-**	**-**	**-**	***0.388***

Exhibit P-5, Cost Analysis: PB 2019 Army		Date: February 2018
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 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 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	-	-	89.427	-	-	-	-	-	-	194.000	2	0.388	-	-	-	194.000	2	0.388

Exhibit P-5, Cost Analysis: PB 2019 Army		Date: February 2018
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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Procurement Quantity *(Units in Each)*	-	1,728	2,121	2,383	-	2,383
Gross/Weapon System Cost *($ in Millions)*	35.105	44.262	52.062	60.702	-	60.702
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	35.105	44.262	52.062	60.702	-	60.702
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**35.105**	**44.262**	**52.062**	**60.702**	**-**	**60.702**
(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)*	-	25.615	24.546	25.473	-	25.473

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

Cost Elements	Prior Years			FY 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 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	-	-	0.753	-	-	0.966	-	-	0.985	-	-	0.761	-	-	-	-	-	0.761
2. Engineering Change Orders	-	-	-	-	-	0.094	-	-	0.095	-	-	0.097	-	-	-	-	-	0.097
3. Testing	-	-	-	-	-	0.150	-	-	0.154	-	-	0.157	-	-	-	-	-	0.157
4. System Fielding Support	-	-	1.655	-	-	1.848	-	-	1.885	-	-	2.400	-	-	-	-	-	2.400
5. System Assessment	-	-	0.458	-	-	0.558	-	-	0.569	-	-	0.328	-	-	-	-	-	0.328
6. Logistics Support	-	-	1.310	-	-	1.441	-	-	1.457	-	-	0.684	-	-	-	-	-	0.684
7. Data	-	-	-	-	-	0.366	-	-	0.194	-	-	0.198	-	-	-	-	-	0.198
8. PM Management Support	-	-	1.536	-	-	1.923	-	-	2.154	-	-	1.501	-	-	-	-	-	1.501
5kW/60Hz (MEP1030)(†)	20.997	650	13.648	21.400	800	17.120	18.500	1,039	19.222	19.000	476	9.044	-	-	-	19.000	476	9.044
10kW/60Hz (MEP1040)(†)	24.223	650	15.745	24.800	668	16.566	22.695	800	18.156	23.300	1,250	29.125	-	-	-	23.300	1,250	29.125
15kW/400Hz (MEP1051)(†)	-	-	-	-	-	-	24.872	180	4.477	-	-	-	-	-	-	-	-	-
15kW/60Hz (MEP1050)(†)	-	-	-	26.100	70	1.827	23.385	26	0.608	23.998	507	12.167	-	-	-	23.998	507	12.167

Exhibit P-5, Cost Analysis: PB 2019 Army		Date: February 2018
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 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 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)
30kW/60Hz (MEP1060)(†)	-	-	-	-	-	-	27.711	76	2.106	28.265	150	4.240	-	-	-	28.265	150	4.240
60kW/60Hz (MEP1070)(†)	-	-	-	38.500	30	1.155	-	-	-	-	-	-	-	-	-	-	-	-
30kW/400Hz (MEP1061)	-	-	-	31.000	8	0.248	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Recurring Cost	-	-	*35.105*	-	-	*44.262*	-	-	*52.062*	-	-	*60.702*	-	-	-	-	-	*60.702*
Subtotal: Flyaway Cost	**-**	**-**	***35.105***	**-**	**-**	***44.262***	**-**	**-**	***52.062***	**-**	**-**	***60.702***	**-**	**-**	**-**	**-**	**-**	***60.702***
Gross/Weapon System Cost	**-**	**-**	**35.105**	**25.615**	**1,728**	**44.262**	**24.546**	**2,121**	**52.062**	**25.473**	**2,383**	**60.702**	**-**	**-**	**-**	**25.473**	**2,383**	**60.702**

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2019 Army		Date: February 2018
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	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
5kW/60Hz (MEP1030)(†)		2017	CUMMINS POWER GENERATION; INC / Minneapolis, MN	MIPR	Philadelphia, PA	Aug 2017	Feb 2018	800	21.400	Y		
5kW/60Hz (MEP1030)(†)		2018	CUMMINS POWER GENERATION; INC / Minneapolis, MN	SS / FFP	ACC-APG, Belvoir	Jun 2018	Dec 2019	1,039	18.500	Y		
5kW/60Hz (MEP1030)(†)		2019	CUMMINS POWER GENERATION; INC / Minneapolis, MN	SS / FFP	ACC-APG, Belvior	Jan 2019	Jan 2020	476	19.000	Y		
10kW/60Hz (MEP1040)(†)		2017	CUMMINS POWER GENERATION; INC / Minneapolis, MN	MIPR	Philadelphia, PA	Aug 2017	Feb 2018	668	24.800	Y		
10kW/60Hz (MEP1040)(†)		2018	CUMMINS POWER GENERATION; INC / Minneapolis, MN	SS / FFP	ACC-APG, Belvoir	Jun 2018	Dec 2019	800	22.700	Y		
10kW/60Hz (MEP1040)(†)		2019	CUMMINS POWER GENERATION; INC / Minneapolis, MN	SS / FFP	ACC-APG, Belvior	Jan 2019	Jan 2020	1,250	23.300	Y		
15kW/400Hz (MEP1051)		2017	CUMMINS POWER GENERATION; INC / Minneapolis, MN	MIPR	Philadelphia, PA	Aug 2017	Feb 2018	0	0.000	Y		
15kW/400Hz (MEP1051)		2018	CUMMINS POWER GENERATION; INC / Minneapolis, MN	SS / FFP	ACC-APG, Belvoir	Jun 2018	Dec 2019	180	24.870	Y		
15kW/60Hz (MEP1050)(†)		2017	CUMMINS POWER GENERATION; INC / Minneapolis, MN	MIPR	Philadelphia, PA	Aug 2017	Feb 2018	70	26.100	Y		
15kW/60Hz (MEP1050)(†)		2018	CUMMINS POWER GENERATION; INC / Minneapolis, MN	SS / FFP	ACC-APG, Belvoir	Jun 2018	Dec 2019	26	23.390	Y		
15kW/60Hz (MEP1050)(†)		2019	CUMMINS POWER GENERATION; INC / Minneapolis, MN	SS / FFP	ACC-APG, Belvior	Jan 2019	Jan 2020	507	24.000	Y		
30kW/60Hz (MEP1060)		2018	CUMMINS POWER GENERATION; INC / Minneapolis, MN	SS / FFP	ACC-APG, Belvoir	Jun 2018	Dec 2019	76	27.710	Y		
60kW/60Hz (MEP1070)		2017	CUMMINS POWER GENERATION; INC / Minneapolis, MN	MIPR	Philadelphia, PA	Aug 2017	Feb 2018	30	38.500	Y		

(†) indicates the presence of a P-21

Exhibit P-21, Production Schedule: PB 2019 Army		Date: February 2018
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 (Units in Each)							Fiscal Year 2017												Fiscal Year 2018											BALANCE
										Calendar Year 2017														Calendar Year 2018								
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2016	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
5kW/60Hz (MEP1030)																														
Prior Years Deliveries: 650																														
	1	2017	ARMY	800	0	800											A -	-	-	-	-	-	66	66	66	66	67	67	67	67	268
	1	2018	ARMY	1,039	0	1,039																					A -	-	-	-	1,039
	1	2019	ARMY	476	0	476																									476
10kW/60Hz (MEP1040)																														
Prior Years Deliveries: 650																														
	2	2017	ARMY	668	0	668											A -	-	-	-	-	-	55	55	55	55	56	56	56	56	224
	2	2018	ARMY	800	0	800																					A -	-	-	-	800
	2	2019	ARMY	1,250	0	1,250																									1,250
15kW/60Hz (MEP1050)																														
	3	2017	ARMY	70	0	70											A -	-	-	-	-	-	5	5	6	6	6	6	6	6	24
	3	2018	ARMY	26	0	26																					A -	-	-	-	26
	3	2019	ARMY	507	0	507																									507
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2019 Army		Date: February 2018
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 (Units in Each)							Fiscal Year 2019												Fiscal Year 2020											BALANCE
										Calendar Year 2019														Calendar Year 2020										
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2018	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
5kW/60Hz (MEP1030)																														
Prior Years Deliveries: 650																														
	1	2017	ARMY	800	532	268	67	67	67	67																				0
	1	2018	ARMY	1,039	0	1,039	-	-	-	-	-	-	-	-	-	-	-	-	-	-	86	86	86	86	86	87	87	87	87	87	174
	1	2019	ARMY	476	0	476				A	-	-	-	-	-	-	-	-	-	-	-	-	39	39	39	39	40	40	40	40	40	120
10kW/60Hz (MEP1040)																														
Prior Years Deliveries: 650																														
	2	2017	ARMY	668	444	224	56	56	56	56																				0
	2	2018	ARMY	800	0	800	-	-	-	-	-	-	-	-	-	-	-	-	-	-	66	66	66	66	67	67	67	67	67	67	134
	2	2019	ARMY	1,250	0	1,250				A	-	-	-	-	-	-	-	-	-	-	-	-	104	104	104	104	104	104	104	104	104	314
15kW/60Hz (MEP1050)																														
	3	2017	ARMY	70	46	24	6	6	6	6																				0
	3	2018	ARMY	26	0	26	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	2	2	2	2	2	2	2	2	2	6
	3	2019	ARMY	507	0	507				A	-	-	-	-	-	-	-	-	-	-	-	-	42	42	42	42	42	42	42	42	42	129
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2019 Army		Date: February 2018
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 (Units in Each)							Fiscal Year 2021												Fiscal Year 2022												
										Calendar Year 2021														Calendar Year 2022									
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2020	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	BALANCE
5kW/60Hz (MEP1030)																														
Prior Years Deliveries: 650																														
	1	2017	ARMY	800	800	0																								0
	1	2018	ARMY	1,039	865	174	87	87																						0
	1	2019	ARMY	476	356	120	40	40	40																					0
10kW/60Hz (MEP1040)																														
Prior Years Deliveries: 650																														
	2	2017	ARMY	668	668	0																								0
	2	2018	ARMY	800	666	134	67	67																						0
	2	2019	ARMY	1,250	936	314	104	105	105																					0
15kW/60Hz (MEP1050)																														
	3	2017	ARMY	70	70	0																								0
	3	2018	ARMY	26	20	6	3	3																						0
	3	2019	ARMY	507	378	129	43	43	43																					0
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2019 Army		Date: February 2018
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)

MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Month)			Procurement Leadtime (Months)							
					Initial				Reorder			
		MSR For 2019	1-8-5 For 2019	MAX For 2019	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	CUMMINS POWER GENERATION; INC - Minneapolis, MN	1,600	3,100	5,000	6	2	17	19	0	4	12	16
2	CUMMINS POWER GENERATION; INC - Minneapolis, MN	1,600	3,100	5,000	6	2	17	19	0	4	12	16
3	CUMMINS POWER GENERATION; INC - Minneapolis, MN	1,600	3,100	5,000	6	2	17	19	0	4	12	16

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).

Exhibit P-5, Cost Analysis: PB 2019 Army		Date: February 2018
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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Procurement Quantity *(Units in Each)*	-	639	612	1,370	10	1,380
Gross/Weapon System Cost *($ in Millions)*	31.250	41.763	36.400	61.051	0.545	61.596
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	31.250	41.763	36.400	61.051	0.545	61.596
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**31.250**	**41.763**	**36.400**	**61.051**	**0.545**	**61.596**
(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)*	-	65.357	59.477	44.563	54.500	44.635

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

Cost Elements	Prior Years			FY 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 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	-	-	1.522	-	-	0.501	-	-	1.761	-	-	0.761	-	-	-	-	-	0.761
2. Engineering Change Orders	-	-	0.020	-	-	0.021	-	-	0.022	-	-	0.022	-	-	-	-	-	0.022
3. Testing	-	-	1.051	-	-	0.052	-	-	0.053	-	-	0.054	-	-	-	-	-	0.054
4.System Fielding Support	-	-	1.569	-	-	0.001	-	-	1.676	-	-	1.390	-	-	-	-	-	1.390
5. System Assessment	-	-	0.392	-	-	0.400	-	-	0.240	-	-	0.321	-	-	-	-	-	0.321
6. Logistics Support	-	-	1.050	-	-	0.001	-	-	1.215	-	-	0.561	-	-	-	-	-	0.561
7. Data	-	-	0.192	-	-	0.366	-	-	0.199	-	-	0.203	-	-	-	-	-	0.203
8. PM Management Support	-	-	1.984	-	-	0.237	-	-	2.171	-	-	2.306	-	-	-	-	-	2.306
PP3001, two 5kW 50/60Hz, LTT(†)	-	-	-	-	-	-	51.308	26	1.334	54.500	74	4.033	54.500	10	0.545	54.500	84	4.578
PP3102, two 10kW 50/60Hz(†)	-	-	-	61.371	30	1.841	58.456	90	5.261	59.630	92	5.486	-	-	-	59.630	92	5.486
PP3105, two 30kW 50/60Hz(†)	-	-	-	72.350	3	0.217	68.916	119	8.201	70.000	70	4.900	-	-	-	70.000	70	4.900
PP3106, two 60kW 50/60Hz(†)	-	-	-	-	-	-	82.300	40	3.292	82.190	42	3.452	-	-	-	82.190	42	3.452

Exhibit P-5, Cost Analysis: PB 2019 Army		Date: February 2018
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 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 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)
PU2001, 5kW 50/60Hz(†)	29.010	98	2.843	29.526	139	4.104	28.122	90	2.531	28.234	286	8.075	-	-	-	28.234	286	8.075
PP3003, two 15kW 50/60Hz(†)	61.980	50	3.099	63.040	12	0.756	-	-	-	62.800	15	0.942	-	-	-	62.800	15	0.942
PU2002, 10kW 50/60Hz(†)	28.020	100	2.802	30.648	141	4.321	32.040	99	3.172	32.103	165	5.297	-	-	-	32.103	165	5.297
PU2101, 15kW 50/60Hz, M200(†)	-	-	-	33.685	750	25.264	32.078	51	1.636	35.069	260	9.118	-	-	-	35.069	260	9.118
PU2102, 30kW 50/60Hz(†)	37.137	313	11.624	37.806	56	2.117	36.000	31	1.116	39.477	130	5.132	-	-	-	39.477	130	5.132
PU2112, 30kW 400Hz(†)	-	-	-	-	-	-	38.567	30	1.157	42.269	26	1.099	-	-	-	42.269	26	1.099
PU 2111, 15Kw/400Hz(†)	-	-	-	-	-	-	-	-	-	36.000	30	1.080	-	-	-	36.000	30	1.080
PU2003, 15kW/60Hz, LTT(†)	-	-	-	34.000	46	1.564	-	-	-	34.200	30	1.026	-	-	-	34.200	30	1.026
PU2103, 60kW/60Hz(†)	39.266	79	3.102	-	-	-	37.861	36	1.363	38.620	150	5.793	-	-	-	38.620	150	5.793
Subtotal: Recurring Cost	-	-	*31.250*	-	-	*41.764*	-	-	*36.400*	-	-	*61.051*	-	-	*0.545*	-	-	*61.596*
Subtotal: Flyaway Cost	**-**	**-**	***31.250***	**-**	**-**	***41.764***	**-**	**-**	***36.400***	**-**	**-**	***61.051***	**-**	**-**	***0.545***	**-**	**-**	***61.596***
Gross/Weapon System Cost	**-**	**-**	**31.250**	**65.357**	**639**	**41.763**	**59.477**	**612**	**36.400**	**44.563**	**1,370**	**61.051**	**54.500**	**10**	**0.545**	**44.635**	**1,380**	**61.596**

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2019 Army		Date: February 2018
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	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
PP3001, two 5kW 50/60Hz, LTT		2018	CUMMINS POWER GENERATION; INC / Minneapolis, MN	SS / FFP	ACC-APG, Belvoir	Jun 2018	Dec 2019	26	51.310	Y		
PP3001, two 5kW 50/60Hz, LTT		2019	CUMMINS POWER GENERATION; INC / Minneapolis, MN	SS / FFP	ACC-APG, Belvior	Jan 2019	Jan 2020	84	54.500	Y		
PP3102, two 10kW 50/60Hz(†)		2017	CUMMINS POWER GENERATION; INC / Minneapolis, MN	MIPR	Philadelphia, PA	Aug 2017	Feb 2018	30	61.370	Y		
PP3102, two 10kW 50/60Hz(†)		2018	CUMMINS POWER GENERATION; INC / Minneapolis, MN	SS / FFP	ACC-APG, Belvoir	Jun 2018	Dec 2019	90	58.460	Y		
PP3102, two 10kW 50/60Hz(†)		2019	CUMMINS POWER GENERATION; INC / Minneapolis, MN	SS / FFP	ACC-APG, Belvior	Jan 2019	Jan 2020	92	59.630	Y		
PP3105, two 30kW 50/60Hz		2017	CUMMINS POWER GENERATION; INC / Minneapolis, MN	MIPR	Philadelphia, PA	Aug 2017	Feb 2018	3	72.350	Y		
PP3105, two 30kW 50/60Hz		2018	CUMMINS POWER GENERATION; INC / Minneapolis, MN	SS / FFP	ACC-APG, Belvoir	Jun 2018	Dec 2019	119	68.920	Y		
PP3105, two 30kW 50/60Hz		2019	CUMMINS POWER GENERATION; INC / Minneapolis, MN	SS / FFP	ACC-APG, Belvior	Jan 2019	Jan 2020	70	70.000	Y		
PP3106, two 60kW 50/60Hz		2018	CUMMINS POWER GENERATION; INC / Minneapolis, MN	SS / FFP	ACC-APG, Belvoir	Jun 2018	Dec 2019	40	82.300	Y		
PP3106, two 60kW 50/60Hz		2019	CUMMINS POWER GENERATION; INC / Minneapolis, MN	SS / FFP	ACC-APG, Belvior	Jan 2019	Jan 2020	42	82.190	Y		
PU2001, 5kW 50/60Hz(†)		2017	CUMMINS POWER GENERATION; INC / Minneapolis, MN	MIPR	Philadelphia, PA	Aug 2017	Feb 2018	139	29.530	Y		
PU2001, 5kW 50/60Hz(†)		2018	CUMMINS POWER GENERATION; INC / Minneapolis, MN	SS / FFP	ACC-APG, Belvoir	Jun 2018	Dec 2019	90	28.120	Y		
PU2001, 5kW 50/60Hz(†)		2019	CUMMINS POWER GENERATION; INC / Minneapolis, MN	SS / FFP	ACC-APG, Belvior	Jan 2019	Jan 2020	286	28.230	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		
PP3003, two 15kW 50/60Hz		2019	CUMMINS POWER GENERATION; INC / Minneapolis, MN	SS / FFP	ACC-APG, Belvior	Jan 2019	Jan 2020	15	62.800	Y		
PU2002, 10kW 50/60Hz(†)		2017	CUMMINS POWER GENERATION; INC / Minneapolis, MN	MIPR	Philadelphia, PA	Aug 2017	Feb 2018	141	30.650	Y		
PU2002, 10kW 50/60Hz(†)		2018	CUMMINS POWER GENERATION; INC / Minneapolis, MN	SS / FFP	ACC-APG, Belvoir	Jun 2018	Dec 2019	99	32.040	Y		
PU2002, 10kW 50/60Hz(†)		2019	CUMMINS POWER GENERATION; INC / Minneapolis, MN	SS / FFP	ACC-APG, Belvior	Jan 2019	Jan 2020	165	32.100	Y		
PU2101, 15kW 50/60Hz, M200(†)		2017	CUMMINS POWER GENERATION; INC / Minneapolis, MN	MIPR	Philadelphia, PA	Aug 2017	Feb 2018	750	33.690	Y		

Exhibit P-5a, Procurement History and Planning: PB 2019 Army		Date: February 2018
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	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
PU2101, 15kW 50/60Hz, M200(†)		2018	CUMMINS POWER GENERATION; INC / Minneapolis, MN	SS / FFP	ACC-APG, Belvoir	Jun 2018	Dec 2018	51	32.080	Y		
PU2101, 15kW 50/60Hz, M200(†)		2019	CUMMINS POWER GENERATION; INC / Minneapolis, MN	SS / FFP	ACC-APG, Belvior	Jan 2019	Jan 2020	260	35.070	Y		
PU2102, 30kW 50/60Hz(†)		2017	CUMMINS POWER GENERATION; INC / Minneapolis, MN	MIPR	Philadelphia, PA	Aug 2017	Feb 2018	56	37.810	Y		
PU2102, 30kW 50/60Hz(†)		2018	CUMMINS POWER GENERATION; INC / Minneapolis, MN	SS / FFP	ACC-APG, Belvoir	Jun 2018	Dec 2019	31	36.000	Y		
PU2102, 30kW 50/60Hz(†)		2019	CUMMINS POWER GENERATION; INC / Minneapolis, MN	SS / FFP	ACC-APG, Belvior	Jan 2019	Jan 2020	130	39.480	Y		
PU2112, 30kW 400Hz		2018	CUMMINS POWER GENERATION; INC / Minneapolis, MN	SS / FFP	ACC-APG, Belvoir	Jun 2018	Dec 2019	30	38.570	Y		
PU2112, 30kW 400Hz		2019	CUMMINS POWER GENERATION; INC / Minneapolis, MN	SS / FFP	ACC-APG, Belvior	Jan 2019	Jan 2020	26	42.270	Y		
PU 2111, 15Kw/400Hz		2019	CUMMINS POWER GENERATION; INC / Minneapolis, MN	SS / FFP	ACC-APG, Belvior	Jan 2019	Jan 2020	30	36.000	Y		
PU2003, 15kW/60Hz, LTT		2019	CUMMINS POWER GENERATION; INC / Minneapolis, MN	SS / FFP	ACC-APG, Belvior	Jan 2019	Jan 2020	30	34.200	Y		
PU2103, 60kW/60Hz(†)		2019	CUMMINS POWER GENERATION; INC / Minneapolis, MN	SS / FFP	ACC-APG, Belvior	Jan 2019	Jan 2020	150	38.620	Y		

(†) indicates the presence of a P-21

Exhibit P-21, Production Schedule: PB 2019 Army		Date: February 2018
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 (Units in Each)							Fiscal Year 2017												Fiscal Year 2018												BALANCE
										Calendar Year 2017														Calendar Year 2018									
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2016	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
PP3102, two 10kW 50/60Hz																															
	1	2017	ARMY	30	0	30											A -	-	-	-	-	-	2	2	2	2	2	2	3	3	12
	1	2018	ARMY	90	0	90																					A -	-	-	-	90
	1	2019	ARMY	92	0	92																									92
PU2001, 5kW 50/60Hz																															
Prior Years Deliveries: 98																															
	2	2017	ARMY	139	0	139											A -	-	-	-	-	-	11	11	11	11	11	12	12	12	48
	2	2018	ARMY	90	0	90																					A -	-	-	-	90
	2	2019	ARMY	286	0	286																									286
PU2002, 10kW 50/60Hz																															
Prior Years Deliveries: 100																															
	3	2017	ARMY	141	0	141											A -	-	-	-	-	-	11	11	11	12	12	12	12	12	48
	3	2018	ARMY	99	0	99																					A -	-	-	-	99
	3	2019	ARMY	165	0	165																									165
PU2101, 15kW 50/60Hz, M200																															
	4	2017	ARMY	750	0	750											A -	-	-	-	-	-	62	62	62	62	62	62	63	63	252
	4	2018	ARMY	51	0	51																					A -	-	-	-	51
	4	2019	ARMY	260	0	260																									260
PU2102, 30kW 50/60Hz																															
Prior Years Deliveries: 313																															
	5	2017	ARMY	56	0	56											A -	-	-	-	-	-	4	4	4	4	5	5	5	5	20
	5	2018	ARMY	31	0	31																					A -	-	-	-	31
	5	2019	ARMY	130	0	130																									130
PU2103, 60kW/60Hz																															
Prior Years Deliveries: 79																															
	6	2019	ARMY	150	0	150																									150
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2019 Army		Date: February 2018
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 (Units in Each)							Fiscal Year 2019												Fiscal Year 2020											BALANCE
							Calendar Year 2019															Calendar Year 2020									
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2018	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
PP3102, two 10kW 50/60Hz																														
	1	2017	ARMY	30	18	12	3	3	3	3																					0
	1	2018	ARMY	90	0	90	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7	7	7	7	7	7	8	8	8	8	16
	1	2019	ARMY	92	0	92				A	-	-	-	-	-	-	-	-	-	-	-	-	7	7	7	7	8	8	8	8	8	24
PU2001, 5kW 50/60Hz																														
Prior Years Deliveries: 98																														
	2	2017	ARMY	139	91	48	12	12	12	12																					0
	2	2018	ARMY	90	0	90	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7	7	7	7	7	7	8	8	8	8	16
	2	2019	ARMY	286	0	286				A	-	-	-	-	-	-	-	-	-	-	-	-	23	23	24	24	24	24	24	24	24	72
PU2002, 10kW 50/60Hz																														
Prior Years Deliveries: 100																														
	3	2017	ARMY	141	93	48	12	12	12	12																					0
	3	2018	ARMY	99	0	99	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8	8	8	8	8	8	8	8	8	9	18
	3	2019	ARMY	165	0	165				A	-	-	-	-	-	-	-	-	-	-	-	-	13	13	13	14	14	14	14	14	14	42
PU2101, 15kW 50/60Hz, M200																														
	4	2017	ARMY	750	498	252	63	63	63	63																					0
	4	2018	ARMY	51	0	51	-	-	4	4	4	4	4	4	4	4	4	5	5	5											0
	4	2019	ARMY	260	0	260				A	-	-	-	-	-	-	-	-	-	-	-	-	21	21	21	21	22	22	22	22	22	66
PU2102, 30kW 50/60Hz																														
Prior Years Deliveries: 313																														
	5	2017	ARMY	56	36	20	5	5	5	5																					0
	5	2018	ARMY	31	0	31	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	2	2	2	2	3	3	3	3	3	6
	5	2019	ARMY	130	0	130				A	-	-	-	-	-	-	-	-	-	-	-	-	10	10	11	11	11	11	11	11	11	33
PU2103, 60kW/60Hz																														
Prior Years Deliveries: 79																														
	6	2019	ARMY	150	0	150				A	-	-	-	-	-	-	-	-	-	-	-	-	12	12	12	12	12	12	13	13	13	39
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2019 Army		Date: February 2018
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 (Units in Each)							Fiscal Year 2021												Fiscal Year 2022												BALANCE
							Calendar Year 2021												Calendar Year 2022													
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2020	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
PP3102, two 10kW 50/60Hz																														
	1	2017	ARMY	30	30	0																								0
	1	2018	ARMY	90	74	16	8	8																						0
	1	2019	ARMY	92	68	24	8	8	8																					0
PU2001, 5kW 50/60Hz																														
Prior Years Deliveries: 98																														
	2	2017	ARMY	139	139	0																								0
	2	2018	ARMY	90	74	16	8	8																						0
	2	2019	ARMY	286	214	72	24	24	24																					0
PU2002, 10kW 50/60Hz																														
Prior Years Deliveries: 100																														
	3	2017	ARMY	141	141	0																								0
	3	2018	ARMY	99	81	18	9	9																						0
	3	2019	ARMY	165	123	42	14	14	14																					0
PU2101, 15kW 50/60Hz, M200																														
	4	2017	ARMY	750	750	0																								0
	4	2018	ARMY	51	51	0																								0
	4	2019	ARMY	260	194	66	22	22	22																					0
PU2102, 30kW 50/60Hz																														
Prior Years Deliveries: 313																														
	5	2017	ARMY	56	56	0																								0
	5	2018	ARMY	31	25	6	3	3																						0
	5	2019	ARMY	130	97	33	11	11	11																					0
PU2103, 60kW/60Hz																														
Prior Years Deliveries: 79																														
	6	2019	ARMY	150	111	39	13	13	13																					0
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2019 Army		Date: February 2018
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)

MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Month)			Procurement Leadtime (Months)							
					Initial				Reorder			
		MSR For 2019	1-8-5 For 2019	MAX For 2019	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	CUMMINS POWER GENERATION; INC - Minneapolis, MN	500	1,400	2,800	4	2	17	19	0	4	12	16
2	CUMMINS POWER GENERATION; INC - Minneapolis, MN	500	1,400	2,800	4	2	17	19	0	4	12	16
3	CUMMINS POWER GENERATION; INC - Minneapolis, MN	500	1,400	2,800	4	2	17	19	0	4	12	16
4	CUMMINS POWER GENERATION; INC - Minneapolis, MN	500	1,400	2,800	4	2	17	19	0	4	12	16
5	CUMMINS POWER GENERATION; INC - Minneapolis, MN	500	1,400	2,800	4	2	17	19	0	4	12	16
6	CUMMINS POWER GENERATION; INC - Minneapolis, MN	500	1,400	2,800	4	2	17	19	0	4	12	16

Remarks:
This is an integration of components delivered to the contractor which makes up the power unit/power plant. The manufacturing lead time includes the time to order and receive the generator sets, trailers, and switchboxes.

All production rates are 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).

Exhibit P-5, Cost Analysis: PB 2019 Army		Date: February 2018
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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Procurement Quantity *(Units in Each)*	-	130	130	-	-	-
Gross/Weapon System Cost *($ in Millions)*	14.822	0.351	16.278	1.976	-	1.976
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	14.822	0.351	16.278	1.976	-	1.976
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**14.822**	**0.351**	**16.278**	**1.976**	**-**	**1.976**
(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)*	-	2.700	125.215	-	-	-

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

Cost Elements	Prior Years			FY 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 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	-	-	0.350	-	-	0.038	-	-	1.209	-	-	0.976	-	-	-	-	-	0.976
2. Engineering Change Orders	-	-	-	-	-	0.010	-	-	0.106	-	-	-	-	-	-	-	-	-
3. Testing	-	-	-	-	-	0.020	-	-	0.106	-	-	-	-	-	-	-	-	-
4.System Fielding Support	-	-	-	-	-	0.050	-	-	0.781	-	-	-	-	-	-	-	-	-
5. Systems Assesment	-	-	-	-	-	0.113	-	-	0.115	-	-	-	-	-	-	-	-	-
6. Logistics Support	-	-	0.350	-	-	0.020	-	-	1.086	-	-	0.500	-	-	-	-	-	0.500
7. Data	-	-	-	-	-	0.050	-	-	0.106	-	-	-	-	-	-	-	-	-
8. PM Management Support	-	-	0.252	-	-	0.050	-	-	1.396	-	-	0.500	-	-	-	-	-	0.500
LAMPS 100kW Skid(†)	73.439	41	3.011	-	-	-	86.000	15	1.290	-	-	-	-	-	-	-	-	-
LAMPS 100kW Power Unit(†)	89.904	83	7.462	-	-	-	108.043	70	7.563	-	-	-	-	-	-	-	-	-
LAMPS PDU(†)	42.463	80	3.397	-	-	-	56.000	45	2.520	-	-	-	-	-	-	-	-	-
Subtotal: Recurring Cost	-	-	*14.822*	-	-	*0.351*	-	-	*16.278*	-	-	*1.976*	-	-	-	-	-	*1.976*
Subtotal: Flyaway Cost	**-**	**-**	***14.822***	**-**	**-**	***0.351***	**-**	**-**	***16.278***	**-**	**-**	***1.976***	**-**	**-**	**-**	**-**	**-**	***1.976***
Gross/Weapon System Cost	**-**	**-**	**14.822**	**2.700**	**130**	**0.351**	**125.215**	**130**	**16.278**	**-**	**-**	**1.976**	**-**	**-**	**-**	**-**	**-**	**1.976**

Exhibit P-5, Cost Analysis: PB 2019 Army		Date: February 2018
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:	

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2019 Army		Date: February 2018
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

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
LAMPS 100kW Skid		2017	TBD / TBD	/	ACC-APG, Belvoir	Jul 2017	Apr 2018	0	0.000	Y		
LAMPS 100kW Skid		2018	TBD / TBD	/	ACC-APG, Belvoir	Jan 2018	Sep 2018	15	86.000	Y		
LAMPS 100kW Power Unit		2017	TBD / TBD	/	ACC-APG, Belvoir	Jul 2017	Apr 2018	0	0.000	Y		
LAMPS 100kW Power Unit		2018	TBD / TBD	/	ACC-APG, Belvoir	Jan 2018	Sep 2018	70	108.040	Y		
LAMPS PDU		2017	TBD / TBD	/	ACC-APG, Belvoir	Jul 2017	Apr 2018	0	0.000	Y		
LAMPS PDU		2018	TBD / TBD	/	ACC-APG, Belvoir	Jan 2018	Sep 2018	45	56.000	Y		

Exhibit P-5, Cost Analysis: PB 2019 Army		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 60	**P-1 Line Item Number / Title:** 0426MA9800 / Generators And Associated Equip	**Item Number / Title [DODIC]:** R62700 / POWER UNITS/POWER PLANTS
ID Code (A=Service Ready, B=Not Service Ready) :		**MDAP/MAIS Code:**

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Procurement Quantity *(Units in Each)*	1,311	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	524.366	31.761	-	-	-	-
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	524.366	31.761	-	-	-	-
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**524.366**	**31.761**	**-**	**-**	**-**	**-**
(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)*	399.974	-	-	-	-	-

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

Cost Elements	Prior Years			FY 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 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	-	-	63.052	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2. Engineering Change Orders	-	-	0.272	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3. Testing	-	-	1.985	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4. System Fielding Support	-	-	4.444	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5. Systems Assessment	-	-	1.394	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6. Logistics Support	-	-	4.813	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7..Data	-	-	0.465	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8. PM Management Support	-	-	364.045	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PP3101, two 5kW 50/60Hz, M200A1	47.000	33	1.551	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PP3102, two 10kW 50/60Hz	56.000	60	3.360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PP3105, two 30kW 50/60Hz	63.998	468	29.951	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PU2001, 5kW 50/60Hz	27.365	493	13.491	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PP3003, two 15kW 50/60Hz	58.829	76	4.471	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Exhibit P-5, Cost Analysis: PB 2019 Army		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 60	P-1 Line Item Number / Title: 0426MA9800 / Generators And Associated Equip	Item Number / Title [DODIC]: R62700 / POWER UNITS/POWER PLANTS
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 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 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)
PU2002, 10kW 50/60Hz	33.656	521	17.535	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PU2101, 15kW 50/60Hz, M200A1	28.025	200	5.605	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PU2102, 30kW 50/60Hz	30.275	262	7.932	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dummy Cost element	-	-	-	31.761	1,000	31.761	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Recurring Cost	-	-	*524.366*	-	-	*31.761*	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Flyaway Cost	**-**	**-**	***524.366***	**-**	**-**	***31.761***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Gross/Weapon System Cost	**399.974**	**1,311**	**524.366**	**-**	**-**	**31.761**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**

Exhibit P-5, Cost Analysis: PB 2019 Army		Date: February 2018
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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Procurement Quantity *(Units in Each)*	-	-	286	88	-	88
Gross/Weapon System Cost *($ in Millions)*	3.668	10.376	1.285	7.939	-	7.939
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	3.668	10.376	1.285	7.939	-	7.939
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**3.668**	**10.376**	**1.285**	**7.939**	**-**	**7.939**
(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)*	-	-	4.493	90.216	-	90.216

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

Cost Elements	Prior Years			FY 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 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	-	-	-	-	-	2.000	-	-	-	-	-	3.760	-	-	-	-	-	3.760
2. Engineering Change Orders	-	-	-	-	-	0.125	-	-	-	-	-	0.001	-	-	-	-	-	0.001
7. Data	-	-	-	-	-	2.000	-	-	-	-	-	0.076	-	-	-	-	-	0.076
8. PM Management Support	-	-	3.668	-	-	5.126	-	-	1.285	-	-	1.687	-	-	-	-	-	1.687
5. System Assessment	-	-	-	-	-	1.000	-	-	-	-	-	0.086	-	-	-	-	-	0.086
6. Logistic Support	-	-	-	-	-	0.125	-	-	-	-	-	1.009	-	-	-	-	-	1.009
G18358 3kW/60Hz TQG Generator(†)	-	-	-	-	-	-	-	-	-	15.000	88	1.320	-	-	-	15.000	88	1.320
Subtotal: Recurring Cost	-	-	*3.668*	-	-	*10.376*	-	-	*1.285*	-	-	*7.939*	-	-	-	-	-	*7.939*
Subtotal: Flyaway Cost	**-**	**-**	***3.668***	**-**	**-**	***10.376***	**-**	**-**	***1.285***	**-**	**-**	***7.939***	**-**	**-**	**-**	**-**	**-**	***7.939***
Gross/Weapon System Cost	**-**	**-**	**3.668**	**-**	**-**	**10.376**	**4.493**	**286**	**1.285**	**90.216**	**88**	**7.939**	**-**	**-**	**-**	**90.216**	**88**	**7.939**

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2019 Army		Date: February 2018
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	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
G18358 3kW/60Hz TQG Generator		2019	TBD / TBD	C / FP	ACC - NJ	Oct 2018	Apr 2019	88	15.000	Y		

Exhibit P-40, Budget Line Item Justification: PB 2019 Army	Date: February 2018
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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	13.806	7.867	7.436	8.333	-	8.333	13.075	22.784	8.275	3.414	-	84.990
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	13.806	7.867	7.436	8.333	-	8.333	13.075	22.784	8.275	3.414	-	84.990
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**13.806**	**7.867**	**7.436**	**8.333**	**-**	**8.333**	**13.075**	**22.784**	**8.275**	**3.414**	**-**	**84.990**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost *($ in Thousands)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Thousands)*	-	-	619.667	-	-	-	653.750	529.860	1,034.375	-	-	1,023.976

Description:

This effort supports the recapitalization of the MEP-PU-810A/B, Deployable Power Generation & Distribution System (DPGDS) Prime Power Unit (PPU). The DPGDS PPU is the U.S. Army's current prime power mobile electric power generating asset. The DPGDS PPU is a wheel-mounted, diesel engine driven, prime power (Type II), utility (Class 2A), Mode I unit that produces 840 kilowatts (kW), 4160 volts line-to-line at 60Hz and 700kW, 3800 volts line-to-line at 50Hz with an 0.8 power factor, lagging. The MEP-PU-810 has two variants, the MEP-PU-810A, a towed trailer configuration capable of being air transported by a C-130 aircraft, and the MEP-PU-810B, a 5th wheel configuration Department of Transportation (DOT) approved for over the road use at 55 miles per hour. 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.

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023
Army	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	7.867	7.436	8.333	-	8.333	13.075	22.784	8.275	3.414
Total: Secondary Distribution	**Quantity**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
	Total Obligation Authority	**7.867**	**7.436**	**8.333**	**-**	**8.333**	**13.075**	**22.784**	**8.275**	**3.414**

Exhibit P-40, Budget Line Item Justification: PB 2019 Army	Date: February 2018
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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 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			- / 13.806	- / 7.867	12 / 7.436	- / 8.333	- / -	- / 8.333
P-40	**Total Gross/Weapon System Cost**				**- / 13.806**	**- / 7.867**	**- / 7.436**	**- / 8.333**	**- / -**	**- / 8.333**

*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 2019 Base procurement dollars in the amount of $8.333 million supports First Article Testing of the DPGDS PPU Recapitalization units. IAW Army Regulation 70-1, Army Acquisition Policy, Recapitalization is a key element in the modernization and sustainment of the Army's current force. The goals of recapitalization are to extend service life, stabilize the rate of growth of operating and support costs, improve reliability, maintainability, safety, and the efficiency of recapitalized systems. Further, recapitalization is expected to reduce the logistics footprint, as well as enhance warfighting capabilities for selected recapitalized systems. Hence, the recapitalization of the existing DPGDS PPUs is required to extend their economic useful life and to prevent a capability gap from emerging. Units currently requiring this capability include the 249th Engineer Battalion (Prime Power), the Missile Defense Agency/U.S. Army Space and Missile Defense Command Forward-Based Mode radar sites. This effort will streamline the logistical support requirements, capitalize on advancements in technology and afford the capability to the force for an estimated additional fifteen (15) years.

At contract award in April 2017, the prime vendor took possession of Government Furnished Property first article units, three (3) each MEP-PU-810A and MEP-PU-810B, and is creating the Modification Work Order (MWO) to Recapitalize a MEP-PU-810 A to a MEP-PU-810C and a MEP-PU-810B to a MEP-PU-810D. Upon successful completion of the MWO on the first article units, first article testing will commence. Consequently, there are no quantities listed in FY 2019.

Exhibit P-5, Cost Analysis: PB 2019 Army		Date: February 2018
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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Procurement Quantity *(Units in Each)*	-	-	12	-	-	-
Gross/Weapon System Cost *($ in Millions)*	13.806	7.867	7.436	8.333	-	8.333
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	13.806	7.867	7.436	8.333	-	8.333
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**13.806**	**7.867**	**7.436**	**8.333**	**-**	**8.333**
(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)*	-	-	619.667	-	-	-

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

Cost Elements	Prior Years			FY 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 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	-	-	4.950	-	-	1.951	-	-	0.500	-	-	1.000	-	-	-	-	-	1.000
Engineering Change Orders	-	-	1.000	-	-	0.050	-	-	0.442	-	-	0.100	-	-	-	-	-	0.100
Testing	-	-	0.500	-	-	4.872	-	-	0.010	-	-	3.600	-	-	-	-	-	3.600
Logistics Support	-	-	4.950	-	-	0.500	-	-	0.479	-	-	0.500	-	-	-	-	-	0.500
Data	-	-	0.750	-	-	0.050	-	-	0.455	-	-	0.150	-	-	-	-	-	0.150
PM Management Support	-	-	1.656	-	-	0.444	-	-	0.982	-	-	1.483	-	-	-	-	-	1.483
System Assessment	-	-	-	-	-	-	-	-	-	-	-	1.500	-	-	-	-	-	1.500
Subtotal: Recurring Cost	-	-	*13.806*	-	-	*7.867*	-	-	*2.868*	-	-	*8.333*	-	-	-	-	-	*8.333*
Subtotal: Flyaway Cost	**-**	**-**	***13.806***	**-**	**-**	***7.867***	**-**	**-**	***2.868***	**-**	**-**	***8.333***	**-**	**-**	**-**	**-**	**-**	***8.333***
Hardware Cost																		
Recurring Cost																		
GENERATOR SET: DIESEL ENGINE MEP-810A(†)	-	-	-	-	-	-	365.167	6	2.191	-	-	-	-	-	-	-	-	-
GENERATOR SET: DIESEL ENGINE MEP-810B(†)	-	-	-	-	-	-	396.167	6	2.377	-	-	-	-	-	-	-	-	-
Subtotal: Recurring Cost	-	-	-	-	-	-	-	-	*4.568*	-	-	-	-	-	-	-	-	-
Subtotal: Hardware Cost	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***4.568***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**

Exhibit P-5, Cost Analysis: PB 2019 Army		Date: February 2018
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 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 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	-	-	13.806	-	-	7.867	619.667	12	7.436	-	-	8.333	-	-	-	-	-	8.333

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Army	Quantity	-	12	0	-	0
	Total Obligation Authority	7.867	7.436	8.333	-	8.333
Total: Secondary Distribution	**Quantity**	**-**	**12**	**-**	**-**	**-**
	Total Obligation Authority	**7.867**	**7.436**	**8.333**	**-**	**8.333**

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2019 Army		Date: February 2018
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	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
GENERATOR SET: DIESEL ENGINE MEP-810A		2018	PD Systems / Springfield,VA	C / FPIF	ACC APG, Fort Belvoir	Jan 2018	Oct 2018	6	365.170	N		
GENERATOR SET: DIESEL ENGINE MEP-810B		2018	PD Systems / Springfield,VA	C / FPIF	ACC APG, Fort Belvoir	Jan 2018	Oct 2018	6	396.170	N		

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).

Exhibit P-40, Budget Line Item Justification: PB 2019 Army	Date: February 2018
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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	415	15	85	137	-	137	183	170	233	241	-	1,479
Gross/Weapon System Cost *($ in Millions)*	79.586	3.153	9.000	12.901	-	12.901	16.869	15.887	21.772	22.973	-	182.141
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	79.586	3.153	9.000	12.901	-	12.901	16.869	15.887	21.772	22.973	-	182.141
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**79.586**	**3.153**	**9.000**	**12.901**	**-**	**12.901**	**16.869**	**15.887**	**21.772**	**22.973**	**-**	**182.141**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost *($ in Thousands)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Thousands)*	191.773	210.200	105.882	94.168	-	94.168	92.180	93.453	93.442	95.324	-	123.151

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 Light Capability Rough Terrain Forklift is used to load and unload palletized supplies including ammunition from International Standard Organization (ISO) containers and tactical vehicles. The 5K LCRTF will move supplies across the beach and rough terrain to transfer loads from aircraft landing zones and tactical vehicles. The 5K LCRTF mission profile is 20 hours of operations in all types of environmental conditions. The 5K LCRTF will be employed by cargo battalions, artillery units, transportation support battalions, combat service support units and various aviation units. It will be routinely in forward deployed areas with operating forces in support of combat operations other than war. 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. The 5K LCRT Forklift Army Acquisition Objective (AAO): 2,776 Systems. The minimum sustainment rate is 15 systems.

The All-Terrain Lifter, Army System 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, stuffing and un-stuffing standard Army pallets in 20 foot 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 (LTAS). 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.

Exhibit P-40, Budget Line Item Justification: PB 2019 Army	Date: February 2018
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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 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		415 / 79.586	15 / 3.153	85 / 9.000	137 / 12.901	- / -	137 / 12.901
P-40	**Total Gross/Weapon System Cost**				**415 / 79.586**	**15 / 3.153**	**85 / 9.000**	**137 / 12.901**	**- / -**	**137 / 12.901**

*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 2019 Base procurement dollars in the amount of $12.901 million will procure and field 135 Light Capability Rough Terrain Forklift (LCRTF) systems. The funding will also be used for all associated Program Management support costs.

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.

Exhibit P-5, Cost Analysis: PB 2019 Army		Date: February 2018
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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Procurement Quantity *(Units in Each)*	415	15	85	137	-	137
Gross/Weapon System Cost *($ in Millions)*	79.586	3.153	9.000	12.901	-	12.901
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	79.586	3.153	9.000	12.901	-	12.901
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**79.586**	**3.153**	**9.000**	**12.901**	**-**	**12.901**
(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)*	191.773	210.200	105.882	94.168	-	94.168

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

Cost Elements	Prior Years			FY 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 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(†)	104.120	415	43.210	80.000	15	1.200	88.000	85	7.480	83.052	135	11.212	-	-	-	83.052	135	11.212
Engineering Changes	-	-	-	-	-	-	-	-	-	-	-	0.059	-	-	-	-	-	0.059
System Engineering/ Program Management	-	-	4.699	-	-	0.588	-	-	0.900	-	-	0.387	-	-	-	-	-	0.387
System Test and Evaluation, Production	-	-	1.200	-	-	-	-	-	0.300	-	-	-	-	-	-	-	-	-
Data	-	-	2.400	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Support Equipment	-	-	2.400	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fielding	-	-	25.677	-	-	1.365	-	-	0.320	-	-	1.243	-	-	-	-	-	1.243
Subtotal: Recurring Cost	-	-	*79.586*	-	-	*3.153*	-	-	*9.000*	-	-	*12.901*	-	-	-	-	-	*12.901*
Subtotal: Flyaway Cost	**-**	**-**	***79.586***	**-**	**-**	***3.153***	**-**	**-**	***9.000***	**-**	**-**	***12.901***	**-**	**-**	**-**	**-**	**-**	***12.901***
Gross/Weapon System Cost	**191.773**	**415**	**79.586**	**210.200**	**15**	**3.153**	**105.882**	**85**	**9.000**	**94.168**	**137**	**12.901**	**-**	**-**	**-**	**94.168**	**137**	**12.901**

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2019 Army		Date: February 2018
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	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(†)		2017	JCB Inc. / Pooler, GA	C / FFP	TACOM	Apr 2018	Oct 2018	15	80.000	N		
Hardware(†)		2018	JCB Inc. / Pooler, GA	C / FFP	TACOM	Apr 2018	Oct 2018	85	88.000	N		
Hardware(†)		2019	JCB Inc. / Pooler, GA	C / FFP	TACOM	Jan 2019	Jul 2019	135	83.050	N		

(†) indicates the presence of a P-21

Exhibit P-21, Production Schedule: PB 2019 Army		Date: February 2018
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 2018												Fiscal Year 2019											BALANCE
										Calendar Year 2018														Calendar Year 2019								
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2017	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
Hardware																														
Prior Years Deliveries: 415																														
	1	2017	ARMY	15	0	15							A -	-	-	-	-	-	15											0
	1	2018	ARMY	85	0	85							A -	-	-	-	-	-	17	17	17	17	17								0
	1	2019	ARMY	135	0	135																A -	-	-	-	-	-	17	17	17	84
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2019 Army		Date: February 2018
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 2020												Fiscal Year 2021												BALANCE
										Calendar Year 2020														Calendar Year 2021									
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2019	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
Hardware																															
Prior Years Deliveries: 415																															
	1	2017	ARMY	15	15	0																									0
	1	2018	ARMY	85	85	0																									0
	1	2019	ARMY	135	51	84	17	17	17	17	16																				0
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2019 Army		Date: February 2018
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)							
					Initial				Reorder			
		MSR For 2019	1-8-5 For 2019	MAX For 2019	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	1	17	100	0	4	13	17	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).

Exhibit P-40, Budget Line Item Justification: PB 2019 Army	Date: February 2018
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: N/A
Line Item MDAP/MAIS Code: N/A		

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	4,363	519	-	687	-	687	577	711	553	78	-	7,488
Gross/Weapon System Cost *($ in Millions)*	1,499.133	75.359	88.888	123.228	-	123.228	139.436	87.750	99.611	72.707	-	2,186.112
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	1,499.133	75.359	88.888	123.228	-	123.228	139.436	87.750	99.611	72.707	-	2,186.112
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**1,499.133**	**75.359**	**88.888**	**123.228**	**-**	**123.228**	**139.436**	**87.750**	**99.611**	**72.707**	**-**	**2,186.112**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost *($ in Thousands)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Thousands)*	343.601	145.200	-	179.371	-	179.371	241.657	123.418	180.128	932.141	-	291.949

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 Military Operations on Urban Terrain Instrumentation System (CTC MOUT-IS) provides instrumentation for the collection, data transfer, control, editing and presentation of training exercises including realistic battlefield effects, targetry, and night operations. The After Action Review (AAR) theater provides a multi-media environment with video replay capability to enable discussions and assessments of unit performance during exercises. Program instrumentation is fielded at the National Training Center (NTC), the Joint Readiness Training Center (JRTC), and the Joint Multinational Readiness Center (JMRC).

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.

The CTC Aviation 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.

Exhibit P-40, Budget Line Item Justification: PB 2019 Army	Date: February 2018
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: N/A

Line Item MDAP/MAIS Code: N/A

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.

The Army identified an operational gap in the training strategy for the OPFOR Integrated Air Defense System (IADS). It's a collection of enemy weapons systems that engage Army aviation assets. 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.

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 phone network portion of the Operating Environment to allow BCTs to train on exploit/defeat the network tasks.

Opposing Forces (OPFOR) Surrogate Vehicles (OSV) Tank Thermal Sites (TTS) replaces obsolete and unsustainable M60 TTSs at the Combat Training Centers (CTCs). The current TTSs that the CTCs' OPFOR have on their OPFOR Surrogate Vehicle (OSV) 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 pear 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.

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 Cyber Operations systems shall represent 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 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.

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023
Army	Quantity	519	0	687	-	687	577	711	553	78
	Total Obligation Authority	75.359	88.888	123.228	-	123.228	139.436	87.750	99.611	72.707
Total: Secondary Distribution	**Quantity**	**519**	**-**	**687**	**-**	**687**	**577**	**711**	**553**	**78**
	Total Obligation Authority	**75.359**	**88.888**	**123.228**	**-**	**123.228**	**139.436**	**87.750**	**99.611**	**72.707**

Exhibit P-40, Budget Line Item Justification: PB 2019 Army	Date: February 2018
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:** N/A
Line Item MDAP/MAIS Code: N/A	

Exhibits Schedule					Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 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			4,363 / 1,499.133	519 / 75.359	- / 88.888	687 / 123.228	- / -	687 / 123.228
P-40	**Total Gross/Weapon System Cost**				**4,363 / 1,499.133**	**519 / 75.359**	**- / 88.888**	**687 / 123.228**	**- / -**	**687 / 123.228**

*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 2019 Base procurement dollars in the amount of $123.228 million supports the following efforts:

FY 2019 Combat Training Center Instrumentation System (CTC-IS) Base procurement dollars in the amount of $40.868 million procures Joint Multinational Readiness Center (JMRC) modernization to include five new communications sites, composed of both fixed towers and High Mobility Multipurpose Wheeled Vehicle (HMMWV)-mounted mobile (Remote Base Station - RBS) capabilities, to increase the spectrum coverage to near 100% over the JMRC training areas. JMRC is providing the HMMWVs to include operations and maintenance costs associated with the vehicles. Both types of sites will have base stations and ancillary components to support the Observer Controller Communications System (OCCS) voice network and the Range Data Measurement Subsystem (RDMS) Tactical Engagement Simulation (TES) data network. Funding will also be used to perform 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 2019 Combat Training Center Military Operations on Urban Terrain Instrumentation System (CTC MOUT-IS) Base procurement dollars in the amount of $11.379 million procures Continuous Technology Refreshment (CTR) to evolve the system architecture to Common Training Instrumentation Architecture (CTIA) Version 4 standards for the 3 CTC MOUT areas at National Training Center. All cameras, IT equipment, and software will be replaced. The site will also receive new user Manuals, New Equipment Training, and interim contractor support.

FY 2019 Combat Training Center LIVE FIRE Modernization (CTC LIVE FIRE MOD) Base procurement dollars in the amount of $4.834 million procures the Capability Set 3 package of targets for JRTC, which will close out the JRTC CTC Live Fire requirements and targets for the NTC. Total quantity of 477 target kits include 325 Stationary Infantry Targets (SITs), 87 Double Arm Targets (DATs), 4 Moving Armor Targets (MATs), 61 Moving Infantry Targets (MITs), ancillary equipment, and integration.

FY 2019 OPFOR Integrated Air Defense System (IADS) Base procurement dollars in the amount of $5.910 million procures visual modification (VISMOD) mock-ups with thermal signatures to replicate Threat air defense systems, Ground Threat Emitters (GTEs), and aircraft instrumentation kits in support of opposing threat training at the National Training Center, Joint Readiness Training Center and the Joint Multinational Readiness Center.

FY 2019 Independent Commercially Compatible Cellular Network System (IC3NS) base procurement in the amount of $4.482 million procures closed loop cellular infrastructure for Opposing Force (OPFOR) use during training rotations at the National Training Center (NTC) and Joint Readiness Training Center (JRTC). The IC3NS program begins in FY19 with the procurement of 3G cellular infrastructure and subsequent fielding during FY20. Phase II, 4G cellular infrastructure fielding occurs in FY23-24.

FY 2019 Opposing Forces (OPFOR) Surrogate Vehicles (OSV) Tank Thermal Sites (TTS) Base procurement dollars in the amount of $27.382 million procures replacement thermal sights for the OSV and Main Battle Tank (MBT) fleet and support for the new sights. These sites replace obsolete inadequate equipment in order to provide a near pear TTS that is common to today's M1 Abrams Tanks and M2 Bradley's (Block 1 Version 2nd Generation FLIR). This will allow the CTCs' OPFOR to fight safely at night.

Exhibit P-40, Budget Line Item Justification: PB 2019 Army		Date: February 2018
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:** N/A
Line Item MDAP/MAIS Code: N/A		

FY 2019 Opposing Forces (OPFOR) Vehicles Base procurement dollars in the amount of $23.000 million funds the conversion of 26 each M113 family of vehicles (FOV) into two variants which consist of 12 Opposing Forces Surrogate Training System Main Battle Tanks (OSTS-MBT) and 14 Opposing Surrogate Vehicles.

FY 2019 Base procurement dollars in the amount of $0.573 million procures program management and travel in support of OPFOR Surrogate Wheeled Vehicles (OSWV) program.

FY 2019 Base procurement dollars for Operational Environment and Infrastructure Improvements in the amount of $3.000 million procures integration of the Cyber and Electro-Magnetic Activities (CEMA) and Integrated Air Defense Systems (IADS) integration with the Combat Training Center (CTC) Instrumentation System (IS).

FY 2019 Base procurement dollars for EW/Space/Cyber in the amount of $1.800 million procures and integrates IT equipment in support of the Cyber Environment Replication (CER) program.

FY 2019 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).

All quantities support the Active Army.

Exhibit P-5, Cost Analysis: PB 2019 Army		Date: February 2018
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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Procurement Quantity *(Units in Each)*	4,363	519	-	687	-	687
Gross/Weapon System Cost *($ in Millions)*	1,499.133	75.359	88.888	123.228	-	123.228
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	1,499.133	75.359	88.888	123.228	-	123.228
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**1,499.133**	**75.359**	**88.888**	**123.228**	**-**	**123.228**
(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)*	343.601	145.200	-	179.371	-	179.371

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

Cost Elements	Prior Years			FY 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 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(†)	27,585.000	1	27.585	33,612.000	1	33.612	27,750.000	1	27.750	10,000.000	1	10.000	-	-	-	10,000.000	1	10.000
Combat Training Center Instrumentation System (CTC-IS) Essential Lifecycle Activities	-	-	1,349.049	-	-	29.042	-	-	41.007	-	-	28.249	-	-	-	-	-	28.249
CTC MOUT-IS Instrumentation	3,377.818	11	37.156	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CTC MOUT-IS Continuous Tech Refresh	-	-	-	-	-	1.694	-	-	3.491	-	-	11.074	-	-	-	-	-	11.074
OPFOR WEAPONS (MBT, OSV & SLM) kits	19.450	626	12.176	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CTC LIVE FIRE MOD Kits(†)	10.143	1,139	11.553	4.687	505	2.367	6.007	600	3.604	9.727	477	4.640	-	-	-	9.727	477	4.640
CTC Aviation Shootback Kits	2,012.083	12	24.145	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
OPFOR Integrated Air Defense System (IADS)(†)	-	-	-	-	-	-	66.667	30	2.000	242.682	22	5.339	-	-	-	242.682	22	5.339

Exhibit P-5, Cost Analysis: PB 2019 Army		Date: February 2018
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 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 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)
IC3NS HW Components(†)	-	-	-	-	-	-	-	-	-	2,241.000	2	4.482	-	-	-	2,241.000	2	4.482
Opposing Forces (OPFOR) Surrogate Vehicles (OSV) Tank Thermal Sites (TTS)(†)	-	-	-	-	-	-	-	-	-	175.526	156	27.382	-	-	-	175.526	156	27.382
Opposing Forces (OPFOR) Vehicles Conversion(†)	-	-	-	-	-	-	-	-	-	884.615	26	23.000	-	-	-	884.615	26	23.000
EW/Space/Cyber(†)	-	-	-	-	-	-	-	-	-	600.000	3	1.800	-	-	-	600.000	3	1.800
Operational Environment and Infrastructure Improvements	-	-	-	-	-	-	-	-	-	-	-	3.000	-	-	-	-	-	3.000
Subtotal: Recurring Cost	-	-	*1,461.664*	-	-	*66.715*	-	-	*77.852*	-	-	*118.966*	-	-	-	-	-	*118.966*
Subtotal: Flyaway Cost	**-**	**-**	***1,461.664***	**-**	**-**	***66.715***	**-**	**-**	***77.852***	**-**	**-**	***118.966***	**-**	**-**	**-**	**-**	**-**	***118.966***
Support - Program Management Cost																		
Contractor Management	-	-	37.469	-	-	8.644	-	-	11.036	-	-	4.262	-	-	-	-	-	4.262
Subtotal: Support - Program Management Cost	**-**	**-**	***37.469***	**-**	**-**	***8.644***	**-**	**-**	***11.036***	**-**	**-**	***4.262***	**-**	**-**	**-**	**-**	**-**	***4.262***
Gross/Weapon System Cost	**343.601**	**4,363**	**1,499.133**	**145.200**	**519**	**75.359**	**-**	**-**	**88.888**	**179.371**	**687**	**123.228**	**-**	**-**	**-**	**179.371**	**687**	**123.228**

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Army	Quantity	519	0	687	-	687
	Total Obligation Authority	75.359	88.888	123.228	-	123.228
Total: Secondary Distribution	**Quantity**	**519**	**-**	**687**	**-**	**687**
	Total Obligation Authority	**75.359**	**88.888**	**123.228**	**-**	**123.228**

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2019 Army		Date: February 2018
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	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
Combat Training Center Instrumentation System (CTC-IS) Modernization(†)		2017	Northrup Grumman Tech Services / Orlando, Fl	C / FFP	ACC, Orlando, FL	Nov 2017	May 2018	1	33,612.000	Y		
Combat Training Center Instrumentation System (CTC-IS) Modernization(†)		2018	TBS (CTC IS) / TBS	C / FFP	ACC, Orlando, FL	Apr 2018	Apr 2019	1	27,750.000	N		
Combat Training Center Instrumentation System (CTC-IS) Modernization(†)		2019	TBS (CTC IS) / TBS	C / FFP	ACC, Orlando, FL	Jun 2019	May 2020	1	10,000.000	N		
CTC LIVE FIRE MOD Kits		2017	Advanced IT Concepts (CTC LF) / Winter Springs, FL	Option / IDIQ	ACC, Orlando, FL	Jun 2017	Mar 2018	505	4.690	Y		
CTC LIVE FIRE MOD Kits		2018	TBS (CTC LF MOD) / TBS	C / IDIQ	ACC, Orlando, FL	Mar 2018	Dec 2018	600	6.010	Y		
CTC LIVE FIRE MOD Kits		2019	TBS (CTC LF MOD) / TBS	Option / IDIQ	ACC, Orlando, FL	Jan 2019	Jul 2019	477	9.730	Y	Mar 2018	Nov 2018
OPFOR Integrated Air Defense System (IADS)(†)		2018	TBS (IADS) / TBS	SS / FFP	ACC, Orlando, FL	Jan 2018	Jan 2019	30	66.670	Y		
OPFOR Integrated Air Defense System (IADS)(†)		2019	TBS (IADS) / TBS	Option / FFP	ACC, Orlando, FL	Aug 2019	Aug 2020	22	242.680	Y		
IC3NS HW Components		2019	TBS (IC3NS) / TBS	C / IDIQ	ACC, Orlando, FL	May 2019	May 2020	2	2,241.000	N		
Opposing Forces (OPFOR) Surrogate Vehicles (OSV) Tank Thermal Sites (TTS)(†)		2019	DRS Technologies (OSV TTS) / Arlington, VA	C / FFP	TACOM Contracting Center	Feb 2019	Jul 2019	156	175.530	Y		
Opposing Forces (OPFOR) Vehicles Conversion(†)		2019	TBS (OPFOR Vehicles) / TBS	C / FFP	TACOM Contracting Center	Feb 2019	Jul 2019	26	884.620	Y		
EW/Space/Cyber		2019	TBS (EW/Space/Cyber) / TBS	C / FFP	ACC, Orlando, FL	Feb 2019	Feb 2020	3	600.000	Y		

(†) 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.

CTC Live Fire Modernization Target Kit costs are dependent on the quantities and the types of targets being procured per year. For example, FY 19 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. Target Kits are GOTS items.

P-5A cost elements with no presence of a P-21 is due to the total cost being less than the $5 million threshold identified in the published FY 2019 President's Budget Submission (PB) Resource Formulation Guide (RFG). RFG, page 10-11, states, "If any of the cost elements on the P-21 is under $5 million, that element will not be generated."

Exhibit P-21, Production Schedule: PB 2019 Army		Date: February 2018
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 (Units in Each)							Fiscal Year 2017												Fiscal Year 2018												BALANCE
										Calendar Year 2017														Calendar Year 2018									
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2016	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
Combat Training Center Instrumentation System (CTC-IS) Modernization																															
Prior Years Deliveries: 1																															
	1	2017	ARMY	1	0	1														A	-	-	-	-	-	1					0
	2	2018	ARMY	1	0	1																			A	-	-	-	-	-	1
	2	2019	ARMY	1	0	1																									1
OPFOR Integrated Air Defense System (IADS)																															
	3	2018	ARMY	30	0	30																A	-	-	-	-	-	-	-	-	30
	3	2019	ARMY	22	0	22																									22
Opposing Forces (OPFOR) Surrogate Vehicles (OSV) Tank Thermal Sites (TTS)																															
	4	2019	ARMY	156	0	156																									156
Opposing Forces (OPFOR) Vehicles Conversion																															
	5	2019	ARMY	26	0	26																									26
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2019 Army		Date: February 2018
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 (Units in Each)							Fiscal Year 2019												Fiscal Year 2020												BALANCE
										Calendar Year 2019														Calendar Year 2020								
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2018	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
Combat Training Center Instrumentation System (CTC-IS) Modernization																														
Prior Years Deliveries: 1																														
	1	2017	ARMY	1	1	0																								0
	2	2018	ARMY	1	0	1	-	-	-	-	-	-	1																	0
	2	2019	ARMY	1	0	1									A -	-	-	-	-	-	-	-	-	-	-	1					0
OPFOR Integrated Air Defense System (IADS)																														
	3	2018	ARMY	30	0	30	-	-	-	30																				0
	3	2019	ARMY	22	0	22											A -	-	-	-	-	-	-	-	-	-	-	-	22		0
Opposing Forces (OPFOR) Surrogate Vehicles (OSV) Tank Thermal Sites (TTS)																														
	4	2019	ARMY	156	0	156					A -	-	-	-	-	13	13	13	13	13	13	13	13	13	13	13	13				0
Opposing Forces (OPFOR) Vehicles Conversion																														
	5	2019	ARMY	26	0	26					A -	-	-	-	-	3	3	3	3	3	3	3	3	2							0
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2019 Army		Date: February 2018
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)							
					Initial				Reorder			
		MSR For 2019	1-8-5 For 2019	MAX For 2019	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	Northrup Grumman Tech Services - Orlando, Fl	1	1	1	0	5	13	18	0	13	7	20
2	TBS (CTC IS) - TBS	1	1	1	0	6	13	19	0	8	12	20
3	TBS (IADS) - TBS	1	75	150	0	3	13	16	0	10	13	23
4	DRS Technologies (OSV TTS) - Arlington, VA	30	200	300	0	4	6	10	0	4	6	10
5	TBS (OPFOR Vehicles) - TBS	12	26	45	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).

Exhibit P-40, Budget Line Item Justification: PB 2019 Army	Date: February 2018
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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	47,042	18,780	353	1,116	-	1,116	711	1,096	1,820	2,491	-	73,409
Gross/Weapon System Cost *($ in Millions)*	5,229.811	253.050	288.689	228.598	-	228.598	205.008	173.434	183.879	192.551	-	6,755.020
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	5,229.811	253.050	288.689	228.598	-	228.598	205.008	173.434	183.879	192.551	-	6,755.020
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**5,229.811**	**253.050**	**288.689**	**228.598**	**-**	**228.598**	**205.008**	**173.434**	**183.879**	**192.551**	**-**	**6,755.020**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost *($ in Thousands)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Thousands)*	111.173	13.474	817.816	204.837	-	204.837	288.338	158.243	101.032	77.299	-	92.019

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 Home Station Instrumentation Training System (HITS), Live, Virtual, Constructive Integrating Architecture (LVC-IA), Army Targetry System (ATS), Digital Range Training System (DRTS), Integrated Military Operations in Urbanized Terrain (MOUT) Training System (IMTS), Battle Command Training Capability - Equipment Support (BCTC-ES), Common Training Instrumentation Architecture (CTIA), Intelligence & Electronic Warfare Tactical Proficiency Trainer (IEWTPT), Target Modernization, Joint Land Component Constructive Training Capability (JLCCTC), Common Battle Command Simulations Equipment (CBCSE), Joint Pacific Multinational Readiness Capability-Instrumentation System (JPMRC-IS), Call For Fire Trainer (CFFT), Engagement Skills Trainer (EST), Instrumentable Multiple Integrated Laser Engagement System (I-MILES), Basic Electronics Maintenance Trainer (BEMT), and Medical Simulation Training Center (MSTC).

The Engagement Skills Trainer (EST) is the unit/institutional, indoor, multipurpose, multi-lane, small arms, crew-served and individual anti-tank training simulation that enables training across three different modes: individual marksmanship; small unit (collective) gunnery and tactical training; and judgmental use of force (shoot/don't shoot), which includes escalation of force/graduated response scenarios.

The Call For Fire Trainer (CFFT) family of systems is a lightweight, rapidly deployable, observed fire training system that provides simulated battlefield training for Fire Support Specialists (FSS), Joint Fires Observers (JFO), and Soldiers. The system provides simulated battlefield training to conduct Indirect Fires, Close Air Support, Close Combat Attack, and Naval Surface Fire Support. The CFFT Immersive System provides the capability for Army, Joint, Multinational, and Special Operations Forces to conduct advanced, complex, and realistic fires training at the Fires Center of Excellence, Ft Sill, OK. CFFT is a critical training enabler to support Warfighters in applying precision fires on target to prevent fratricide and minimize collateral damage.

The Basic Electronics Maintenance Trainer (BEMT) is a stand-alone, non-system training device that supports critical basic electronics training for 40 different Military Occupational Specialties (MOS) in all aspects of basic electronics, including theory and hands-on application. The system allows instructors and administrators to assign lessons and practical exercises to either a class of networked student stations, or individual students, and track their progress.

Exhibit P-40, Budget Line Item Justification: PB 2019 Army		Date: February 2018
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 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.

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.

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 Intelligence Electronic Warfare Tactical Proficiency Trainer (IEWTPT) is a Non-System Training Device (NTSD) which supports training intelligence soldiers by simulating and stimulating Military Intelligence (MI) organic or surrogate equipment. It enables sustainment of critical individual, crew, and collective tasks/skills and is the core of the United States Army Intelligence Center of Excellence (USAICoEs) military Intelligence (MI) holistic training strategy and includes both stand-alone and network enabled training capabilities. IEWTPT provides a realistic Intelligence target environment for Multi-Intelligence disciplines such as Signals Intelligence (SIGINT), Imagery Intelligence (IMINT), Human Intelligence (HUMINT), Counterintelligence (CI), 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), and Aerial Intelligence assets such as Enhanced Medium Altitude Reconnaissance and Surveillance System (EMARSS), Airborne Reconnaissance Low-Enhanced (ARL-E), and Guardrail Common Sensor (GRCS). IEWTPT provides static and dynamic training capabilities (interactive environment for individual, collective, and Live, Virtual, and Constructive integrated mission rehearsals/exercises utilizing a constructive simulation feed) in an integrated, playback, and stand-alone mode. IEWTPT is composed of two major components: Technical Control Cell (TCC) and the HUMINT Control Cell (HCC). The IEWTPT TCC provides critical Intel enhancements to a constructive simulation to stimulate go-to-war or surrogate ISR systems where system operators/analysts are able to exploit exercise intelligence data during training, just as they would in a "real world" operation.

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 Training and Readiness.

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 for Army Hub and Spoke Mission Training Complexes in support of JLCCTC. CBCSE must be capable of running each JLCCTC fielded software version of Army training in support of Army Force 2025 and beyond.

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.

Exhibit P-40, Budget Line Item Justification: PB 2019 Army		Date: February 2018
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 Digital Range Training System (DRTS) provides new and modern ranges capable of training, evaluating and stressing Soldiers and their modern equipment with a realistic train-as-you-fight environment. Four standard training ranges Digital Multi-Purpose Range Complex (DMPRC), Digital Multi-Purpose Training Range (DMPTR), Battle Area Complex (BAX) and Digital Air Ground Integrated Range (DAGIR) will utilize all available combat systems capabilities, and digitally integrate them to manage all forces undergoing individual and collective live-fire training and qualification. These Training Systems replace obsolete, inadequate training methods and equipment in order to simulate new weapon systems, challenge Soldiers, incorporate the Digitized Force, and provide enhanced training data collection and After Action Review (AAR) capabilities. They incorporate digital system training as well as integrate multiple ranges and training environments for the training units.

The Integrated Military Operations in Urban Terrain (MOUT) Training System (IMTS) program fields the Combined Arms Collective Training Facility (CACTF), the Collective Training Facility (CTF), Live Fire Shoot House (LFSH), and the Urban Assault Course (UAC). The IMTS training systems provide instrumentation to enable training and After Action Review (AAR) of Soldier training exercises up to the battalion level combined training for the Active and Reserve Component Army. The CACTF, CTF, and LFSH enable training and AAR under daylight and night vision environments.

The Target Modernization program enhances the warfighter's live fire readiness by providing continued software support and enhancements for the Government owned target control system software Targetry Range Automated Control and Recording (TRACR), integration with legacy range adapter software (interfacing TRACR to legacy targets, allowing range upgrades without the need to replace the targets), a single Information Assurance accreditation and support package, and synchronization with the Common Training Instrumentation Architecture (CTIA). Target Modernization supports the revitalization vice replacement of existing ranges. The Target Modernization program provides a single common target specification, standards, and interfaces for all target system devices, and provides support for Live, Virtual, and Constructive Training Environment.

Battle Command Training Capability - Equipment Support (BCTC-ES) provides the furniture, fixtures, equipment (FFE), network, Reconfigurable Tactical Operation Center (RTOC), technical control, classroom and work cell capabilities, and technical tools required for all Army Mission Training Complexes (MTC) and for the associated Military Construction Army (MCA) infrastructure. Enabling the linkage of constructive simulations to Mission Command (MC) systems and extending unit communications. BCTC-ES provides equipment that integrates Army MC Systems into Tactical Operation Center (TOC) sets, providing visualization of the Common Operating Picture (COP). It also supports the requirements for the DoD Information Assurance Certification and Accreditation Process (DIACAP), which helps enable the linkage within a 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.

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.

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.

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.

Exhibit P-40, Budget Line Item Justification: PB 2019 Army		Date: February 2018
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		

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023
Army	Quantity	18,594	172	959	-	959	666	1,011	1,730	2,373
	Total Obligation Authority	189.501	258.573	193.403	-	193.403	170.870	150.110	165.211	165.254
ANG	Quantity	186	181	61	-	61	8	19	10	57
	Total Obligation Authority	58.841	26.769	7.595	-	7.595	9.021	6.782	8.950	7.867
AR	Quantity	-	0	96	-	96	37	66	80	61
	Total Obligation Authority	4.708	3.347	27.600	-	27.600	25.117	16.542	9.718	19.430
Total: Secondary Distribution	**Quantity**	**18,780**	**353**	**1,116**	**-**	**1,116**	**711**	**1,096**	**1,820**	**2,491**
	Total Obligation Authority	**253.050**	**288.689**	**228.598**	**-**	**228.598**	**205.008**	**173.434**	**183.879**	**192.551**

Exhibit P-40, Budget Line Item Justification: PB 2019 Army	Date: February 2018
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
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Line Item MDAP/MAIS Code: N/A	

Exhibits Schedule					Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 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, P-21	A		559 / 2,594.178	342 / 45.263	342 / 44.775	574 / 44.614	- / -	574 / 44.614
P-5	NA0102 / NSTD INTELLIGENCE	P-5a	A		2 / 67.464	2 / 5.377	2 / 6.693	2 / 4.658	- / -	2 / 4.658
P-5	NA0103 / NSTD COMMAND & CONTROL	P-5a	A		11 / 394.672	9 / 41.959	9 / 35.578	15 / 38.113	- / -	15 / 38.113
P-5	NA0105 / NSTD RANGES AND TARGETS	P-5a, P-21	A		13 / 1,397.733	5 / 56.718	- / 91.302	2 / 99.640	- / -	2 / 99.640
P-5	NA0106 / NSTD Battle Command Training Center Support Prg	P-5a			32 / 339.811	17 / 18.038	- / 22.506	18 / 20.005	- / -	18 / 20.005
P-5	NA0116 / NSTD- MILES	P-5a, P-21			46,403 / 367.068	18,399 / 74.518	- / 76.144	498 / 13.487	- / -	498 / 13.487
P-5	NA0121 / NSTD - LVC ARCHITECTURE	P-5a			22 / 68.885	6 / 11.177	- / 11.691	7 / 8.081	- / -	7 / 8.081
P-40	**Total Gross/Weapon System Cost**				**47,042 / 5,229.811**	**18,780 / 253.050**	**353 / 288.689**	**1,116 / 228.598**	**- / -**	**1,116 / 228.598**

*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:
Reduction in funding from FY18 to FY19 is primarily due to a reduction in Program Management Office cost, resulting from the movement of civilian pay from procurement funding to operations and maintenance funding.

FY 2019 BASE dollars in the amount of $228.598 million supports the following efforts:

Soldier Training Support program of $44.614 million consists of:

FY 2019 Base procurement dollars in the amount of $4.553 million will be used to perform essential lifecycle activities on the existing 15 fielded Home Station Instrumentation Systems (HITS). The Continuous Technology Refresh (CTR) and Post-Deployment Software Support (PDSS) efforts will focus on upgrading the two HITS versions to a common and Government owned Exercise Control product with more maintainable, sustainable software and hardware. 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.

FY 2019 Base procurement dollars in the amount of $14.161 million will be used to procure continued Post Development Software Support(PDSS), Continuous Tech Refresh(CTR) and funding capabilities to support the Full Operational Capability(FOC) of the Joint Pacific Multinational Readiness Capability Information System (JPMRC-IS) located at Schofield Barracks, HI.

FY 2019 Base procurement dollars in the amount of $0.416 will support the fielding of upgraded systems. The use of the Call For Fire Trainer (CFFT) maximizes and enhances live training, and is used for total recertification of Joint Fires Observers (JFO), reducing time and cost while enabling readiness.

FY 2019 Base procurement dollars in the amount of $15.137 million will provide (6) Medical Training Command and Control (MT-C2) platforms. 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 (129) Tactical Combat Casualty Care - Exportable (TC3-X) Kits to US Army Brigades. Each TC3-X kit consists of, and utilizes, High Fidelity Tetherless Mannequins, Low fidelity Mannequins, Traumatic Amputation Task Trainers, Upper Torso airway/breathing task trainers, a Field Expedient Bleeding System, Moulage kit and an expendables kit. The TC3 - X provides 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)

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Line Item MDAP/MAIS Code: N/A		

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.

FY 2019 Base procurement dollars in the amount of $9.228 million will tech re-fresh Engagement Skills Trainer (EST) systems and provides for pre-planned product improvements in weapons optics integration. The EST enables readiness and enhances live training, and is identified as a substitute for night and chemical, biological, radiological, nuclear and explosives scenarios. Units without assigned weapons are authorized to use the EST for qualification per regulations.

FY2019 Base procurement dollars of $1.119 million supports the Basic Electronics Maintenance Trainer (BEMT) II to procure, upgrade and install 262 BEMT II systems to provide increased capabilities in systems level training, distance learning, and soldiering techniques.

Intelligence program of $4.658 million consists of:

FY 2019 Base procurement dollars in the amount of $4.658 million supports the Intelligence Electronic Warfare Tactical Proficiency Trainer (IEWTPT) in procuring two Technical Control Cells (TCC) and Interim Contractor Support for two installations and technical and post deployment software support for TCC systems across the Army. The funds will provide concurrency for the Distributed Common Ground Station-Army (DCGS-A) increment 2, Prophet next generation, aerial intelligence, surveillance, reconnaissance sensors and will fund the migration of the cloud computing environment. IEWTPT consists of a blend of non-developmental hardware components and mission specific software to support detailed Army intelligence corps training and readiness at home station locations.

Command & Control program of $38.113 million consists of:

FY 2019 Base procurement dollars in the amount of $38.113 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, Information Assurance/Risk Management Framework (RMF) for Mission Command Concurrency, Synthetic Environment Core (SE Core) and Live, Virtual, Constructive - Integrating Architecture (LVC-IA) Interoperability, Regression Test of external interfaces, Fielding activities, Information Assurance Vulnerability Assessment (IAVA), Configuration Management, and Helpdesk activities. This will enable continued efficient training from the current systems and facilities, then transition these facilities to the objective simulation systems as part of the Constructive Simulation Strategy. This Constructive Simulation Strategy will merge software from two Federations (Multi-Resolution Federation used for Brigade/Division and above exercises and Entity Resolution Federation used for Brigade and below exercises) into a single Federation solution. 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.

Ranges and Targets program of $99.640 million consists of:

FY 2019 Base procurement dollars in the amount of $15.350 million procures for the Army Targetry Systems (ATS) program a Battle Area Complex Range for Eglin, continuous tech refreshment of 10 ranges for multiple locations, and program support. 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.

FY 2019 Base procurement dollars in the amount of $56.436 million procures for the Digital Range Training System (DRTS) program: program management support and travel, Digital Air-Ground Integration for Orchard Range Phase I, Post Deployment Software Support (PDSS), Aviation Integration, and continuous tech refreshment of 8 ranges for multiple locations.

FY 2019 Base procurement dollars in the amount of $22.528 million procures for the Integrated Military Operations in Urban Terrain (MOUT) Training System (IMTS) program, Continuous Technology Refreshment (CTR) for eight aging Combined Arms Collective Training Facilities (CACTFs) This brings all CACTFs to the same hardware and software configuration using Government-owned software. Funding also provides new work stations, monitors, equipment room air conditioners, and uninterruptable power source (UPS) for the remaining 24 CACTF sites. The new work stations are required to provide the

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Line Item MDAP/MAIS Code: N/A		

hardware components necessary for enabling Windows 10 security capabilities including Trusted Platform Module 2.0 as required by the DoD. The air conditioners and UPS have not been replaced since initial fielding (2004 thru 2010).

FY 2019 Base procurement dollars amount to $5.326 million procures for the Target Modernization program 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). Funding also provides for the conversion of 44 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.

Battle Command Training Support Program of $20.005 million consists of:

FY 2019 Base procurement dollars in the amount of $20.005 million procures Mission Command equipment for refresh/ upgrades, network infrastructure equipment for upgrades or to meet emerging Information Assurance and Risk Management Framework (RMF) requirements, and the refresh of furniture, fixtures and equipment for the Mission Command Training Complexes. Battle Command Training Capability-Equipment Support (BCTC-ES), BCTC-ES also funds DIACAP and Risk Management Framework (RMF), server refresh and upgrades, as well as the Electronic Security System (ESS). All of these systems enable initial, sustainment and pre-deployment digital training as well as providing a reach back capability for deployed units. DIACAP and Mission Command refresh quantities reflect all sites which will receive at least one type of these fieldings or equipment installations. The cost varies by site and fiscal year, depending on the size of the MTC or length of time between upgrades. Starting in FY17, the increase in costs show actual costs in regards to refreshing legacy MTCs; the older systems were analog and all technology is currently digital and has increased refresh cost significantly. The onset of the RMF process and the new requirements it is levying on MTC has driven costs up, which is from the increased amount of equipment (HW/SW) required to maintain accreditation and system security.

MILES Program of $13.487 million consists of:

FY 2019 Base procurement dollars in the amount of $13.487 million procures 498 Vehicle Tactical Engagement Simulation System (VTESS) kits to satisfy our Basis of Issue Plan (BOIP), which replaces the obsolete Basic MILES, and MILES XXI at various installations Army wide. Procurement funding will also provide a technology refresh to the I-MILES fleet which incorporates the Live Training Engagement Composition (LTEC) architecture and Engineering Change Proposals that refine and enhance the VTESS systems during its initial fielding. I-MILES systems support Brigade Combat Teams (BCT) down to the squad level and can be integrated into the Live-Virtual-Constructive Integrated Architecture (LVC-IA) 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 (AAR) to assess Tactics Techniques Procedures (TTPs). All I-MILES devices integrate into instrumentation systems fielded by Project Manager Training Devices (PM TRADE), providing near real time tracking ability and high-level training fidelity. The completion of the I-MILES basis of issue plan and pure fleeting of the I-MILES product lines will standardize training at Home Station, Combat Training Centers and deployed training environments. Pure fleeting 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 39th Chief of the Staff of the Army's #1 priority of "Readiness".

LVC Architecture Program of $8.081 million consists of:

FY 2019 Base procurement dollars in the amount of $3.035 million procures for the required CTIA program infrastructure, core lab facility, Post Deployment Software Support (PDSS), Technology Refresh and Modifications for the Live Training Transformation (LT2), Family of Training Systems (FTS), and the Live, Virtual, Constructive Integrated Training Environment (LVC-ITE).

Exhibit P-40, Budget Line Item Justification: PB 2019 Army		Date: February 2018
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		

FY 2019 Base procurement dollars in the amount of $5.046 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 Force 2025 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 conduct upgrades from Version 2 to Version 3 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. FY18 quantity of 7 is not currently populating on the P-40 for NA0121 due to database being locked. It will be updated in the next budget cycle.

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.

Exhibit P-5, Cost Analysis: PB 2019 Army		Date: February 2018
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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Procurement Quantity *(Units in Each)*	559	342	342	574	-	574
Gross/Weapon System Cost *($ in Millions)*	2,594.178	45.263	44.775	44.614	-	44.614
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	2,594.178	45.263	44.775	44.614	-	44.614
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**2,594.178**	**45.263**	**44.775**	**44.614**	**-**	**44.614**
(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)*	4,640.748	132.348	130.921	77.725	-	77.725

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

Cost Elements	Prior Years			FY 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 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(†)	74.081	370	27.410	45.846	298	13.662	42.519	206	8.759	52.136	177	9.228	-	-	-	52.136	177	9.228
CFFT (Various Configurations)(†)	4,135.500	4	16.542	111.583	24	2.678	-	-	-	-	-	-	-	-	-	-	-	-
CFFT Concurrency/ PDSS	-	-	2.496	-	-	3.140	-	-	-	-	-	0.416	-	-	-	-	-	0.416
HITS version 4	3,772.500	2	7.545	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HITS Engineering Change Proposal	-	-	1.217	-	-	-	-	-	1.491	-	-	-	-	-	-	-	-	-
HITS Concurrency	-	-	3.646	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HITS PDSS/CTR	-	-	11.966	-	-	5.602	-	-	4.204	-	-	3.982	-	-	-	-	-	3.982
JPMRC-IS FOC/ PDSS/CTR	-	-	9.962	-	-	7.680	-	-	12.963	-	-	14.071	-	-	-	-	-	14.071
MSTC MT-C2(†)	9,996.000	1	9.996	350.000	10	3.500	323.556	9	2.912	350.000	6	2.100	-	-	-	350.000	6	2.100
MSTC MATT Concurrency	32.929	42	1.383	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MSTC Validation Lanes	33.000	2	0.066	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MSTC Part Task Trainers	32.905	21	0.691	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Exhibit P-5, Cost Analysis: PB 2019 Army		Date: February 2018
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:**

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

Cost Elements	Prior Years			FY 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 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 High Fidelity Tetherless Mannequin(†)	32.915	117	3.851	113.000	10	1.130	-	-	-	-	-	-	-	-	-	-	-	-
MSTC TC3X(†)	-	-	-	-	-	-	96.203	79	7.600	34.884	129	4.500	-	-	-	34.884	129	4.500
MSTC Continous Tech Refreshment	-	-	-	-	-	-	-	-	-	-	-	6.740	-	-	-	-	-	6.740
Racks and Shelving	-	-	-	-	-	1.877	-	-	0.271	-	-	-	-	-	-	-	-	-
Training Devices	-	-	2,323.779	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BEMT II Upgrades(†)	-	-	-	-	-	-	-	-	-	4.271	262	1.119	-	-	-	4.271	262	1.119
Subtotal: Recurring Cost	-	-	*2,420.550*	-	-	*39.269*	-	-	*38.200*	-	-	*42.156*	-	-	-	-	-	*42.156*
Subtotal: Flyaway Cost	**-**	**-**	***2,420.550***	**-**	**-**	***39.269***	**-**	**-**	***38.200***	**-**	**-**	***42.156***	**-**	**-**	**-**	**-**	**-**	***42.156***
Support - Program Management Cost																		
Contractor Management	-	-	173.628	-	-	5.994	-	-	6.575	-	-	2.458	-	-	-	-	-	2.458
Subtotal: Support - Program Management Cost	**-**	**-**	***173.628***	**-**	**-**	***5.994***	**-**	**-**	***6.575***	**-**	**-**	***2.458***	**-**	**-**	**-**	**-**	**-**	***2.458***
Gross/Weapon System Cost	**4,640.748**	**559**	**2,594.178**	**132.348**	**342**	**45.263**	**130.921**	**342**	**44.775**	**77.725**	**574**	**44.614**	**-**	**-**	**-**	**77.725**	**574**	**44.614**

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Army	Quantity	162	162	423	-	423
	Total Obligation Authority	39.570	21.352	34.641	-	34.641
ANG	Quantity	180	180	59	-	59
	Total Obligation Authority	5.693	23.423	3.676	-	3.676
AR	Quantity	-	-	92	-	92
	Total Obligation Authority	-	-	6.297	-	6.297
Total: Secondary Distribution	**Quantity**	**342**	**342**	**574**	**-**	**574**
	Total Obligation Authority	**45.263**	**44.775**	**44.614**	**-**	**44.614**

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2019 Army		Date: February 2018
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	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
EST - Five Lane Subsystem/ Refresh(†)		2017	Meggitt Training Systems, Inc / Suwanee, GA	C / FFP	ACC, Orlando, FL	Apr 2017	Jan 2018	298	45.846	Y		
EST - Five Lane Subsystem/ Refresh(†)		2018	Meggitt Training Systems, Inc / Suwanee, GA	Option / FFP	ACC, Orlando, FL	Apr 2018	Aug 2018	206	42.520	Y		
EST - Five Lane Subsystem/ Refresh(†)		2019	Meggitt Training Systems, Inc / Suwanee, GA	Option / FFP	ACC, Orlando, FL	Apr 2019	Aug 2019	177	52.140	Y		
CFFT (Various Configurations)		2017	Nova Technologies / Panama City, FL	C / FFP	ACC, Orlando, FL	Apr 2017	Jan 2018	24	111.583	Y		
MSTC MT-C2		2017	General Dynamics Mission Sys / Fairfax, VA	C / FFP	ACC, Orlando, FL	Mar 2017	Sep 2017	10	350.000	Y		
MSTC MT-C2		2018	TBS (MSTC) MT-C2 / TBS	C / FFP	ACC Orlando, FL	Mar 2018	May 2018	9	323.556	N		
MSTC MT-C2		2019	TBS (MSTC) MT-C2 / TBS	Option / FFP	ACC Orlando, FL	Jun 2019	Aug 2019	6	350.000	N		
MSTC High Fidelity Tetherless Mannequin		2017	General Dynamics Mission Sys / Fairfax, VA	C / FFP	ACC, Orlando, FL	Mar 2017	Jul 2017	10	113.000	N		
MSTC TC3X		2018	TBS (MSTC) TC3X / TBS	C / FFP	ACC, Orlando, FL	Mar 2018	May 2018	79	96.203	N		
MSTC TC3X		2019	TBS (MSTC) TC3X / TBS	Option / FFP	ACC, Orlando, FL	Mar 2019	May 2019	129	34.880	N		
BEMT II Upgrades		2019	TBS (BEMT II) / TBS	SS / FFP	ACC, Orlando, FL	Jan 2019	Oct 2019	262	4.270	N		

(†) indicates the presence of a P-21

Remarks:
PEO STRI = Program Executive Office for Simulation, Training and Instrumentation

MSTC High Fidelity Tetherless Mannequin (HFTM) are COTS.

Army Contracting Command, (ACC) Orlando, FL

EST - Difference in unit costs are due to quantity levels purchased and associated costs for OCONUS fieldings.

P-5A cost elements with no presence of a P-21 is due to the total cost being less than the $5 million threshold identified in the published FY 2019 President's Budget Submission (PB) Resource Formulation Guide (RFG). RFG, page 10-11, states, "If any of the cost elements on the P-21 is under $5 million, that element will not be generated."

Exhibit P-21, Production Schedule: PB 2019 Army		Date: February 2018
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 (Units in Each)							Fiscal Year 2017												Fiscal Year 2018											BALANCE
										Calendar Year 2017														Calendar Year 2018								
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2016	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
EST - Five Lane Subsystem/Refresh																														
Prior Years Deliveries: 370																														
	1	2017	ARMY	298	0	298							A -	-	-	-	-	-	-	-	-	25	25	25	25	25	25	25	25	25	73
	1	2018	ARMY	206	0	206																			A -	-	-	-	17	17	172
	1	2019	ARMY	177	0	177																									177
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2019 Army		Date: February 2018
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 (Units in Each)							Fiscal Year 2019												Fiscal Year 2020												BALANCE
										Calendar Year 2019														Calendar Year 2020									
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2018	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
EST - Five Lane Subsystem/Refresh																															
Prior Years Deliveries: 370																															
	1	2017	ARMY	298	225	73	25	25	23																						0
	1	2018	ARMY	206	34	172	17	17	17	17	17	17	17	17	17	19															0
	1	2019	ARMY	177	0	177							A	-	-	-	17	17	17	17	17	17	17	17	17	17	7				0
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2019 Army		Date: February 2018
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)

MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Year)			Procurement Leadtime (Months)							
					Initial				Reorder			
		MSR For 2019	1-8-5 For 2019	MAX For 2019	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	Meggitt Training Systems, Inc - Suwanee, GA	10	400	600	0	6	10	16	0	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).

Exhibit P-5, Cost Analysis: PB 2019 Army		Date: February 2018
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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Procurement Quantity *(Units in Each)*	2	2	2	2	-	2
Gross/Weapon System Cost *($ in Millions)*	67.464	5.377	6.693	4.658	-	4.658
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	67.464	5.377	6.693	4.658	-	4.658
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**67.464**	**5.377**	**6.693**	**4.658**	**-**	**4.658**
(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)*	33,732.000	2,688.500	3,346.500	2,329.000	-	2,329.000

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

Cost Elements	Prior Years			FY 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 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(†)	21,196.000	2	42.392	384.000	2	0.768	384.000	2	0.768	384.000	2	0.768	-	-	-	384.000	2	0.768
IEWTPT HCC	-	-	2.761	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
IEWTPT TCC - Retrofit	-	-	0.267	-	-	-	-	-	1.228	-	-	-	-	-	-	-	-	-
PDSS	-	-	-	-	-	-	-	-	0.900	-	-	1.043	-	-	-	-	-	1.043
Concurrency	-	-	-	-	-	-	-	-	1.000	-	-	1.000	-	-	-	-	-	1.000
P3I	-	-	-	-	-	-	-	-	0.535	-	-	0.580	-	-	-	-	-	0.580
Subtotal: Recurring Cost	-	-	*45.420*	-	-	*0.768*	-	-	*4.431*	-	-	*3.391*	-	-	-	-	-	*3.391*
Subtotal: Flyaway Cost	**-**	**-**	***45.420***	**-**	**-**	***0.768***	**-**	**-**	***4.431***	**-**	**-**	***3.391***	**-**	**-**	**-**	**-**	**-**	***3.391***
Hardware Cost																		
Recurring Cost																		
Engineering for Product Improvement	-	-	15.988	-	-	2.521	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Recurring Cost	-	-	*15.988*	-	-	*2.521*	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Hardware Cost	**-**	**-**	***15.988***	**-**	**-**	***2.521***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Support - Contractor Logistics Support (CLS) Cost																		
Oversight	-	-	3.541	-	-	0.900	-	-	0.900	-	-	0.900	-	-	-	-	-	0.900
Subtotal: Support - Contractor Logistics Support (CLS) Cost	**-**	**-**	***3.541***	**-**	**-**	***0.900***	**-**	**-**	***0.900***	**-**	**-**	***0.900***	**-**	**-**	**-**	**-**	**-**	***0.900***
Support - Program Management Cost																		

Exhibit P-5, Cost Analysis: PB 2019 Army		Date: February 2018
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 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 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	-	-	2.515	-	-	1.188	-	-	1.362	-	-	0.367	-	-	-	-	-	0.367
Subtotal: Support - Program Management Cost	***-***	***-***	***2.515***	***-***	***-***	***1.188***	***-***	***-***	***1.362***	***-***	***-***	***0.367***	***-***	***-***	***-***	***-***	***-***	***0.367***
Gross/Weapon System Cost	**33,732.000**	**2**	**67.464**	**2,688.500**	**2**	**5.377**	**3,346.500**	**2**	**6.693**	**2,329.000**	**2**	**4.658**	**-**	**-**	**-**	**2,329.000**	**2**	**4.658**

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Army	Quantity	1	1	-	-	-
	Total Obligation Authority	2.721	0.000	-	-	-
ANG	Quantity	1	1	-	-	-
	Total Obligation Authority	2.656	3.346	-	-	-
AR	Quantity	-	0	2	-	2
	Total Obligation Authority	-	3.347	4.658	-	4.658
Total: Secondary Distribution	**Quantity**	**2**	**2**	**2**	**-**	**2**
	Total Obligation Authority	**5.377**	**6.693**	**4.658**	**-**	**4.658**

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2019 Army		Date: February 2018
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	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
IEWTPT TCC		2017	General Dyn. Mission Sys Inc / Orlando, FL	C / FFP	ACC, Orlando, FL	Feb 2017	May 2017	2	384.000	Y		
IEWTPT TCC		2018	General Dyn. Mission Sys Inc / Orlando, FL	Option / FFP	ACC, Orlando, FL	Feb 2018	May 2018	2	384.000	Y		
IEWTPT TCC		2019	General Dyn. Mission Sys Inc / Orlando, FL	Option / FFP	ACC, Orlando, FL	Feb 2019	May 2019	2	384.000	Y		

Remarks:
A new IEWTPT system contract was awarded in 2nd Quarter 2017 to continue the production using Commercial, Off-the-Shelf (COTS) items, integration, fielding, training, hardware/software updates, and technical support of the IEWTPT Technical Control Cell (TCC) system. Post Deployment Software Support (PDSS) version releases are planned as well as product improvement releases.

Army Contracting Command, (ACC) Orlando, FL

NOTES:
(1) P-5 - Support Costs - Decrease in FY18 to FY19 program management costs due to Army civilians being paid by OMA funds. Program changed the cost element from Program Management Cost to Contractor Management. The $.367 in FY19 is for contractor management support.
(2) Contractor, General Dynamics, changed their name from General Dynamics C4 Sys Inc to General Dynamics Mission Sys Inc.

Exhibit P-5, Cost Analysis: PB 2019 Army		Date: February 2018
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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Procurement Quantity *(Units in Each)*	11	9	9	15	-	15
Gross/Weapon System Cost *($ in Millions)*	394.672	41.959	35.578	38.113	-	38.113
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	394.672	41.959	35.578	38.113	-	38.113
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**394.672**	**41.959**	**35.578**	**38.113**	**-**	**38.113**
(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)*	35,879.273	4,662.111	3,953.111	2,540.867	-	2,540.867

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

Cost Elements	Prior Years			FY 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 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(†)	32,319.000	9	290.871	1,168.500	6	7.011	776.571	7	5.436	746.714	7	5.227	-	-	-	746.714	7	5.227
Flyaway Recurring: Spoke(†)	5,869.200	5	29.346	1,066.000	3	3.198	618.500	8	4.948	603.125	8	4.825	-	-	-	603.125	8	4.825
Subtotal: Recurring Cost	-	-	*320.217*	-	-	*10.209*	-	-	*10.384*	-	-	*10.052*	-	-	-	-	-	*10.052*
Subtotal: Flyaway Cost	**-**	**-**	***320.217***	**-**	**-**	***10.209***	**-**	**-**	***10.384***	**-**	**-**	***10.052***	**-**	**-**	**-**	**-**	**-**	***10.052***
Hardware Cost																		
Recurring Cost																		
Common Hardware Platform Refresh	-	-	12.629	-	-	9.079	-	-	2.091	-	-	6.051	-	-	-	-	-	6.051
Subtotal: Recurring Cost	-	-	*12.629*	-	-	*9.079*	-	-	*2.091*	-	-	*6.051*	-	-	-	-	-	*6.051*
Subtotal: Hardware Cost	**-**	**-**	***12.629***	**-**	**-**	***9.079***	**-**	**-**	***2.091***	**-**	**-**	***6.051***	**-**	**-**	**-**	**-**	**-**	***6.051***
Software Cost																		
Recurring Cost																		
Post Deployment Software Refinement	-	-	33.959	-	-	11.573	-	-	11.805	-	-	11.895	-	-	-	-	-	11.895
Pre-Planned Product Improvement (P3I)	-	-	10.267	-	-	6.862	-	-	6.679	-	-	6.098	-	-	-	-	-	6.098
Subtotal: Recurring Cost	-	-	*44.226*	-	-	*18.435*	-	-	*18.484*	-	-	*17.993*	-	-	-	-	-	*17.993*
Non Recurring Cost																		

Exhibit P-5, Cost Analysis: PB 2019 Army		Date: February 2018
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 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 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	-	-	-	-	-	2.500	-	-	3.010	-	-	3.655	-	-	-	-	-	3.655
Subtotal: Non Recurring Cost	-	-	-	-	-	*2.500*	-	-	*3.010*	-	-	*3.655*	-	-	-	-	-	*3.655*
Subtotal: Software Cost	**-**	**-**	***44.226***	**-**	**-**	***20.935***	**-**	**-**	***21.494***	**-**	**-**	***21.648***	**-**	**-**	**-**	**-**	**-**	***21.648***
Support - Program Management Cost																		
Government Management	-	-	17.600	-	-	1.736	-	-	1.609	-	-	0.362	-	-	-	-	-	0.362
Subtotal: Support - Program Management Cost	**-**	**-**	***17.600***	**-**	**-**	***1.736***	**-**	**-**	***1.609***	**-**	**-**	***0.362***	**-**	**-**	**-**	**-**	**-**	***0.362***
Gross/Weapon System Cost	**35,879.273**	**11**	**394.672**	**4,662.111**	**9**	**41.959**	**3,953.111**	**9**	**35.578**	**2,540.867**	**15**	**38.113**	**-**	**-**	**-**	**2,540.867**	**15**	**38.113**

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Army	Quantity	9	9	13	-	13
	Total Obligation Authority	31.600	35.578	27.802	-	27.802
ANG	Quantity	-	-	2	-	2
	Total Obligation Authority	5.651	-	3.919	-	3.919
AR	Quantity	-	-	-	-	-
	Total Obligation Authority	4.708	-	6.392	-	6.392
Total: Secondary Distribution	**Quantity**	**9**	**9**	**15**	**-**	**15**
	Total Obligation Authority	**41.959**	**35.578**	**38.113**	**-**	**38.113**

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2019 Army		Date: February 2018
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	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
Flyaway Recurring: Division/Hub		2017	Lockheed Martin / Orlando, FL	C / FFP	ACC, Orlando, FL	Aug 2017	Oct 2017	6	1,168.500	Y		
Flyaway Recurring: Division/Hub		2018	Lockheed Martin / Orlando, FL	Option / FFP	ACC, Orlando, FL	Feb 2018	Mar 2018	7	776.571	Y		
Flyaway Recurring: Division/Hub		2019	TBS / TBS	C / FFP	TBS	Oct 2018	Jan 2019	7	746.710	Y		
Flyaway Recurring: Spoke		2017	Lockheed Martin / Orlando, FL	C / FFP	ACC, Orlando, FL	Dec 2016	Feb 2017	3	1,066.000	Y		
Flyaway Recurring: Spoke		2018	Lockheed Martin / Orlando, FL	Option / FFP	ACC, Orlando, FL	Oct 2017	Jan 2018	8	618.500	Y		
Flyaway Recurring: Spoke		2019	TBS / TBS	C / FFP	TBS	Oct 2018	Jan 2019	8	603.130	Y		

Remarks:
Items are all commercial-off-the-shelf (COTS). Per the Resource Formulation Guidance, no P-21 is required for COTS items.

Cost decreased because Government civilian labor moved to OMA SAG 435 MDEP level.

JLCCTC is currently comprised of two federations, Multi-Resolution Federation (MRF) which supports BDE/DIV & above exercises and Entity Resolution Federation (ERF) which supports BDE & below exercises. The Constructive Simulation Strategy combines the capabilities into a single federation solution. The FY 18 and FY 19 Unit Cost (Hub/Spoke) for the JLCCTC federation solution has decreased due to efficiencies gained by implementing the Constructive Simulation Strategy.

Minimal Common Hardware Platforms (CHP) will be refreshed during FY 18. However, during FY 19, program will resume the planned 5-year CHP refresh cycle.

New CBCSE contract (Hub/Spoke) was awarded 30 August 2017 (delayed from December 2016). Due to delay in award, Task Order 0002 award is currently planned for February 2018 (originally planned for October 2017). RFP expected January 2018.

Exhibit P-5, Cost Analysis: PB 2019 Army		Date: February 2018
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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Procurement Quantity *(Units in Each)*	13	5	-	2	-	2
Gross/Weapon System Cost *($ in Millions)*	1,397.733	56.718	91.302	99.640	-	99.640
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	1,397.733	56.718	91.302	99.640	-	99.640
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**1,397.733**	**56.718**	**91.302**	**99.640**	**-**	**99.640**
(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)*	107,517.923	11,343.600	-	49,820.000	-	49,820.000

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

Cost Elements	Prior Years			FY 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 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																		
ATS Hardware(†)	-	-	64.469	2,814.500	4	11.258	5,040.333	3	15.121	2,253.000	1	2.253	-	-	-	2,253.000	1	2.253
ATS CTR (Lifecycle Management)	-	-	-	-	-	-	-	-	-	-	-	11.615	-	-	-	-	-	11.615
DRTS Complex(†)	301,664.500	4	1,206.658	7,000.000	1	7.000	18,316.000	1	18.316	-	-	-	-	-	-	-	-	-
DRTS DAGIR/ DMPRC(†)	-	-	-	-	-	-	-	-	-	8,000.000	1	8.000	-	-	-	8,000.000	1	8.000
DRTS CTR	-	-	4.715	-	-	14.616	-	-	5.788	-	-	45.438	-	-	-	-	-	45.438
DRTS Aviation Integration	-	-	0.995	-	-	6.150	-	-	1.075	-	-	1.282	-	-	-	-	-	1.282
IMTS CTR	-	-	10.755	-	-	6.779	-	-	11.321	-	-	21.761	-	-	-	-	-	21.761
Target Modernization	-	-	15.024	-	-	2.375	-	-	4.687	-	-	4.768	-	-	-	-	-	4.768
IMTS CTF	-	-	12.402	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Recurring Cost	-	-	*1,315.018*	-	-	*48.178*	-	-	*56.308*	-	-	*95.117*	-	-	-	-	-	*95.117*
Non Recurring Cost																		
UDAIRI Range Target Lifter(†)	-	-	-	-	-	-	23,000.000	1	23.000	-	-	-	-	-	-	-	-	-
Subtotal: Non Recurring Cost	-	-	-	-	-	-	-	-	*23.000*	-	-	-	-	-	-	-	-	-
Subtotal: Flyaway Cost	**-**	**-**	***1,315.018***	**-**	**-**	***48.178***	**-**	**-**	***79.308***	**-**	**-**	***95.117***	**-**	**-**	**-**	**-**	**-**	***95.117***
Software Cost																		

Exhibit P-5, Cost Analysis: PB 2019 Army		Date: February 2018
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 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 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 Recurring Cost																		
European Reassurance Initiative - USAREUR - Targetry requirements for Hungary(†)	-	-	-	-	-	-	42.857	63	2.700	-	-	-	-	-	-	-	-	-
Subtotal: Non Recurring Cost	-	-	-	-	-	-	-	-	*2.700*	-	-	-	-	-	-	-	-	-
Subtotal: Software Cost	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***2.700***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Support - Program Management Cost																		
Contractor Management	-	-	71.410	-	-	8.028	-	-	8.677	-	-	3.774	-	-	-	-	-	3.774
Subtotal: Support - Program Management Cost	**-**	**-**	***71.410***	**-**	**-**	***8.028***	**-**	**-**	***8.677***	**-**	**-**	***3.774***	**-**	**-**	**-**	**-**	**-**	***3.774***
Support - Quality Assurance Cost																		
Quality Assurance	-	-	5.094	-	-	0.214	-	-	0.307	-	-	0.334	-	-	-	-	-	0.334
Subtotal: Support - Quality Assurance Cost	**-**	**-**	***5.094***	**-**	**-**	***0.214***	**-**	**-**	***0.307***	**-**	**-**	***0.334***	**-**	**-**	**-**	**-**	**-**	***0.334***
Support - System Engineering Cost																		
System Engineering	-	-	6.211	-	-	0.298	-	-	0.310	-	-	0.415	-	-	-	-	-	0.415
Subtotal: Support - System Engineering Cost	**-**	**-**	***6.211***	**-**	**-**	***0.298***	**-**	**-**	***0.310***	**-**	**-**	***0.415***	**-**	**-**	**-**	**-**	**-**	***0.415***
Gross/Weapon System Cost	**107,517.923**	**13**	**1,397.733**	**11,343.600**	**5**	**56.718**	**-**	**-**	**91.302**	**49,820.000**	**2**	**99.640**	**-**	**-**	**-**	**49,820.000**	**2**	**99.640**

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Army	Quantity	-	-	-	-	-
	Total Obligation Authority	11.877	91.302	89.387	-	89.387
ANG	Quantity	5	-	-	-	-
	Total Obligation Authority	44.841	-	-	-	-
AR	Quantity	-	-	2	-	2
	Total Obligation Authority	-	-	10.253	-	10.253
Total: Secondary Distribution	**Quantity**	**5**	**-**	**2**	**-**	**2**
	Total Obligation Authority	**56.718**	**91.302**	**99.640**	**-**	**99.640**

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2019 Army		Date: February 2018
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	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
ATS Hardware		2017	TBS (ATS HW) / TBS	C / IDIQ	TACOM-RI	Feb 2017	Jul 2017	4	2,814.500	Y		
ATS Hardware		2018	TBS (ATS HW) / TBS	C / IDIQ	TACOM-RI	Feb 2018	Jul 2018	3	5,040.333	Y		
ATS Hardware		2019	TBS (ATS HW) / TBS	C / IDIQ	TACOM-RI	Feb 2019	Jul 2019	1	2,253.000	Y		
DRTS Complex		2017	Lockheed Martin (DRTS) / Orlando, FL 32825	C / FFP	ACC, Orlando, FL	Mar 2017	Sep 2018	1	7,000.000	Y		
DRTS Complex		2018	Lockheed Martin (DRTS) / Orlando, FL 32825	C / FFP	ACC, Orlando, FL	Mar 2018	Mar 2019	1	18,316.000	N		
DRTS DAGIR/DMPRC(†)		2019	Lockheed Martin (DRTS) / Orlando, FL 32825	C / FFP	ACC, Orlando, FL	Mar 2019	Mar 2020	1	8,000.000	N		Dec 2018
UDAIRI Range Target Lifter		2018	TBS (UDAIRI) / Orlando, FL 32825	C / FFP	ACC, Orlando, FL	Mar 2018	Aug 2018	1	23,000.000	Y		
European Reassurance Initiative - USAREUR - Targetry requirements for Hungary		2018	TBS (ERI Targetry) / Orlando, FL 32825	C / FFP	ACC, Orlando, FL	Mar 2018	Sep 2018	63	42.860	Y		

(†) indicates the presence of a P-21

Remarks:

* ATS contractors are Meggitt Defense Systems-Caswell, Minneapolis, MN; Action Target, Provo, UT; SAAB, Orlando, FL; Lockheed-Martin, Huntsville, AL; and Strategic Systems Inc., Decatur, AL. 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

P-5A cost elements with no presence of a P-21 is due to the total cost being less than the $5 million threshold identified in the published FY 2019 President's Budget Submission (PB) Resource Formulation Guide (RFG). RFG, page 10-11, states, "If any of the cost elements on the P-21 is under $5 million, that element will not be generated."

Exhibit P-21, Production Schedule: PB 2019 Army		Date: February 2018
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 (Units in Each)							Fiscal Year 2017												Fiscal Year 2018												BALANCE
										Calendar Year 2017														Calendar Year 2018									
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2016	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
DRTS DAGIR/DMPRC																															
	1	2019	ARMY	1	0	1																									1
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2019 Army		Date: February 2018
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 (Units in Each)							Fiscal Year 2019												Fiscal Year 2020												BALANCE
										Calendar Year 2019														Calendar Year 2020									
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2018	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
DRTS DAGIR/DMPRC																															
	1	2019	ARMY	1	0	1						A -	-	-	-	-	-	-	-	-	-	-	-	1							0
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP		

Exhibit P-21, Production Schedule: PB 2019 Army		Date: February 2018
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)							
					Initial				Reorder			
		MSR For 2019	1-8-5 For 2019	MAX For 2019	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	15	25	0	9	13	22	0	5	13	18

"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).

Exhibit P-5, Cost Analysis: PB 2019 Army		Date: February 2018
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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Procurement Quantity *(Units in Each)*	32	17	-	18	-	18
Gross/Weapon System Cost *($ in Millions)*	339.811	18.038	22.506	20.005	-	20.005
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	339.811	18.038	22.506	20.005	-	20.005
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**339.811**	**18.038**	**22.506**	**20.005**	**-**	**20.005**
(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)*	10,619.094	1,061.059	-	1,111.389	-	1,111.389

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

Cost Elements	Prior Years			FY 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 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	35,013.625	8	280.109	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Furniture, Fixtures & Equipment Refresh(†)	1,970.286	7	13.792	1,050.250	4	4.201	1,313.250	4	5.253	1,421.000	4	5.684	-	-	-	1,421.000	4	5.684
Mission Command Equipment - Hardware(†)	1,256.833	6	7.541	780.000	6	4.680	836.143	7	5.853	751.571	7	5.261	-	-	-	751.571	7	5.261
Battlefield Visualization(†)	759.000	1	0.759	2,526.000	1	2.526	3,159.000	1	3.159	1,621.000	1	1.621	-	-	-	1,621.000	1	1.621
DIACAP / RMF(†)	3,132.625	8	25.061	1,303.500	4	5.214	1,629.500	4	6.518	1,383.000	4	5.532	-	-	-	1,383.000	4	5.532
ESS Services(†)	5,684.000	2	11.368	270.000	3	0.810	253.250	4	1.013	423.000	3	1.269	-	-	-	423.000	3	1.269
Subtotal: Recurring Cost	-	-	*338.630*	-	-	*17.431*	-	-	*21.796*	-	-	*19.367*	-	-	-	-	-	*19.367*
Subtotal: Flyaway Cost	**-**	**-**	***338.630***	**-**	**-**	***17.431***	**-**	**-**	***21.796***	**-**	**-**	***19.367***	**-**	**-**	**-**	**-**	**-**	***19.367***
Support - Program Management Cost																		
Government Management	-	-	1.181	-	-	0.607	-	-	0.710	-	-	0.638	-	-	-	-	-	0.638
Subtotal: Support - Program Management Cost	**-**	**-**	***1.181***	**-**	**-**	***0.607***	**-**	**-**	***0.710***	**-**	**-**	***0.638***	**-**	**-**	**-**	**-**	**-**	***0.638***
Gross/Weapon System Cost	**10,619.094**	**32**	**339.811**	**1,061.059**	**17**	**18.038**	**-**	**-**	**22.506**	**1,111.389**	**18**	**20.005**	**-**	**-**	**-**	**1,111.389**	**18**	**20.005**

Exhibit P-5, Cost Analysis: PB 2019 Army		Date: February 2018
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:**	

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Army	Quantity	17	0	18	-	18
	Total Obligation Authority	18.038	22.506	20.005	-	20.005
Total: Secondary Distribution	**Quantity**	**17**	**-**	**18**	**-**	**18**
	Total Obligation Authority	**18.038**	**22.506**	**20.005**	**-**	**20.005**

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2019 Army		Date: February 2018
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	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
Furniture, Fixtures & Equipment Refresh		2017	TBD / TBD	C / TBD	ACC Orlando, FL	Mar 2018	Jun 2018	4	1,050.250	Y		
Furniture, Fixtures & Equipment Refresh		2018	TBD / TBD	C / TBD	ACC Orlando, FL	Aug 2018	Feb 2019	4	1,313.250			
Furniture, Fixtures & Equipment Refresh		2019	TBD / TBD	C / TBD	ACC Orlando, FL	Aug 2019	Feb 2020	4	1,421.000			
Mission Command Equipment - Hardware		2017	PEO C3T / APG- North, MD	MIPR	ACC Orlando, FL	Jun 2017	Sep 2017	6	780.000	Y		
Mission Command Equipment - Hardware		2018	PEO C3T / APG- North, MD	MIPR	ACC Orlando, FL	Jun 2018	Sep 2018	7	836.140			
Mission Command Equipment - Hardware		2019	PEO C3T / APG- North, MD	MIPR	ACC Orlando, FL	Jun 2019	Sep 2019	7	751.570			
Battlefield Visualization		2017	PEO C3T / APG- North, MD	MIPR	ACC Orlando, FL	Mar 2018	Jun 2018	1	2,526.000	Y		
Battlefield Visualization		2018	PEO C3T / APG- North, MD	MIPR	ACC Orlando, FL	Aug 2018	Feb 2019	1	3,159.000			
Battlefield Visualization		2019	PEO C3T / APG- North, MD	MIPR	ACC Orlando, FL	Aug 2019	Feb 2020	1	1,621.000			
DIACAP / RMF		2017	CDWG / Chicago, IL	C / FFP	ACC Orlando, FL	Jul 2017	Sep 2017	4	1,303.500	Y		
DIACAP / RMF		2018	TBD / TBD	C / TBD	ACC Orlando, FL	Mar 2018	May 2018	4	1,629.500			
DIACAP / RMF		2019	TBD / TBD	C / TBD	ACC Orlando, FL	Oct 2018	Jan 2019	4	1,383.000			
ESS Services		2017	USACE / VA	C / TBD	ACC Orlando, FL	Mar 2018	Jun 2018	3	270.000	Y		
ESS Services		2018	USACE / VA	C / TBD	ACC Orlando, FL	Sep 2018	Sep 2019	4	253.250			
ESS Services		2019	USACE / VA	C / TBD	ACC Orlando, FL	Sep 2019	Sep 2020	3	423.000			

Remarks:
Items are COTS. Per the Resource Formulation Guidance, no P-21 is required for COTS items.

Program is currently going through a contract recompete. Anticipated contract award date is 2QFY18.

Army Contracting Command, (ACC) Orlando, FL

Exhibit P-5, Cost Analysis: PB 2019 Army		Date: February 2018
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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Procurement Quantity *(Units in Each)*	46,403	18,399	-	498	-	498
Gross/Weapon System Cost *($ in Millions)*	367.068	74.518	76.144	13.487	-	13.487
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	367.068	74.518	76.144	13.487	-	13.487
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**367.068**	**74.518**	**76.144**	**13.487**	**-**	**13.487**
(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)*	7.910	4.050	-	27.082	-	27.082

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

Cost Elements	Prior Years			FY 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 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)(†)	6.260	43,077	269.660	2.100	15,959	33.514	-	-	-	-	-	-	-	-	-	-	-	-
MILES Tactical Vehicle System (TVS)	11.107	1,000	11.107	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
I-MILES Vehicle TESS (V-TESS)(†)	11.400	568	6.475	11.500	2,440	28.060	11.659	5,498	64.100	11.775	498	5.864	-	-	-	11.775	498	5.864
MILES CVTESS	25.439	1,758	44.721	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MILES Tech Refresh	-	-	6.567	-	-	1.000	-	-	1.260	-	-	3.227	-	-	-	-	-	3.227
MILES Contractor Engineering Support	-	-	4.996	-	-	2.500	-	-	-	-	-	-	-	-	-	-	-	-
MILES ECPs	-	-	6.714	-	-	1.800	-	-	2.500	-	-	1.700	-	-	-	-	-	1.700
MILES PDSS	-	-	-	-	-	1.146	-	-	-	-	-	-	-	-	-	-	-	-
MILES Initial Spares	-	-	1.600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Recurring Cost	-	-	*351.843*	-	-	*68.020*	-	-	*67.861*	-	-	*10.791*	-	-	-	-	-	*10.791*
Subtotal: Flyaway Cost	**-**	**-**	***351.843***	**-**	**-**	***68.020***	**-**	**-**	***67.861***	**-**	**-**	***10.791***	**-**	**-**	**-**	**-**	**-**	***10.791***
Support - Program Management Cost																		
Contractor Management	-	-	15.228	-	-	6.498	-	-	8.283	-	-	2.696	-	-	-	-	-	2.696
Subtotal: Support - Program Management Cost	**-**	**-**	***15.228***	**-**	**-**	***6.498***	**-**	**-**	***8.283***	**-**	**-**	***2.696***	**-**	**-**	**-**	**-**	**-**	***2.696***
Gross/Weapon System Cost	**7.910**	**46,403**	**367.068**	**4.050**	**18,399**	**74.518**	**-**	**-**	**76.144**	**27.082**	**498**	**13.487**	**-**	**-**	**-**	**27.082**	**498**	**13.487**

Exhibit P-5, Cost Analysis: PB 2019 Army		Date: February 2018
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:	

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Army	Quantity	18,399	0	498	-	498
	Total Obligation Authority	74.518	76.144	13.487	-	13.487
Total: Secondary Distribution	**Quantity**	**18,399**	**-**	**498**	**-**	**498**
	Total Obligation Authority	**74.518**	**76.144**	**13.487**	**-**	**13.487**

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2019 Army		Date: February 2018
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	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
MILES Individual Weapon System (IWS)		2017	Cubic Defense Sys. (IWS) / San Diego, CA	C / FFP	ACC, Orlando, FL	Mar 2017	Jul 2017	15,959	2.100	Y		
I-MILES Vehicle TESS (V-TESS)(†)		2017	Lockheed Martin Corporation / Orlando, FL	C / FFP	ACC, Orlando, FL	Sep 2017	Jun 2018	2,440	11.500	Y		
I-MILES Vehicle TESS (V-TESS)(†)		2018	Lockheed Martin Corporation / Orlando, FL	C / FFP	ACC, Orlando, FL	May 2018	May 2019	5,498	11.660	Y		
I-MILES Vehicle TESS (V-TESS)(†)		2019	Lockheed Martin Corporation / Orlando, FL	Option / FFP	ACC, Orlando, FL	May 2019	May 2020	498	11.780	Y		

(†) indicates the presence of a P-21

Remarks:
Army Contracting Command, (ACC) Orlando, FL

P-5A cost elements with no presence of a P-21 is due to the total cost being less than the $5 million threshold identified in the published FY 2019 President's Budget Submission (PB) Resource Formulation Guide (RFG). RFG, page 10-11, states, "If any of the cost elements on the P-21 is under $5 million, that element will not be generated."

Exhibit P-21, Production Schedule: PB 2019 Army		Date: February 2018
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 (Units in Each)							Fiscal Year 2017												Fiscal Year 2018												BALANCE
							Calendar Year 2017												Calendar Year 2018													
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2016	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
I-MILES Vehicle TESS (V-TESS)																															
Prior Years Deliveries: 568																															
	1	2017	ARMY	2,440	0	2,440												A -	-	-	-	-	-	-	-	610	610	610	610	0
	1	2018	ARMY	5,498	0	5,498																				A -	-	-	-	-	5,498
	1	2019	ARMY	498	0	498																									498

Exhibit P-21, Production Schedule: PB 2019 Army		Date: February 2018
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 (Units in Each)							Fiscal Year 2019												Fiscal Year 2020												BALANCE
							Calendar Year 2019												Calendar Year 2020													
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2018	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
I-MILES Vehicle TESS (V-TESS)																															
Prior Years Deliveries: 568																															
	1	2017	ARMY	2,440	2,440	0																									0
	1	2018	ARMY	5,498	0	5,498	-	-	-	-	-	-	-	459	458	458	458	458	458	458	458	458	458	458	459							0
	1	2019	ARMY	498	0	498								A -	-	-	-	-	-	-	-	-	-	-	-	100	100	100	100	98	0
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2019 Army		Date: February 2018
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)							
					Initial				Reorder			
		MSR For 2019	1-8-5 For 2019	MAX For 2019	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 - Orlando, FL	498	620	9,000	0	17	19	36	0	7	13	20

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 to be 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).

Exhibit P-5, Cost Analysis: PB 2019 Army		Date: February 2018
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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Procurement Quantity *(Units in Each)*	22	6	-	7	-	7
Gross/Weapon System Cost *($ in Millions)*	68.885	11.177	11.691	8.081	-	8.081
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	68.885	11.177	11.691	8.081	-	8.081
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**68.885**	**11.177**	**11.691**	**8.081**	**-**	**8.081**
(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)*	3,131.136	1,862.833	-	1,154.429	-	1,154.429

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

Cost Elements	Prior Years			FY 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 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	-	-	-	-	-	0.750	-	-	0.773	-	-	0.775	-	-	-	-	-	0.775
CTIA Continuous Tech Refresh	-	-	-	-	-	0.445	-	-	0.445	-	-	0.300	-	-	-	-	-	0.300
LVC-IA Fieldings	445.667	12	5.348	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LVC New Equipment Training	-	-	3.044	-	-	-	-	-	-	-	-	0.180	-	-	-	-	-	0.180
LVC-IA Spares	-	-	0.429	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LVC-IA Site Support	-	-	1.315	-	-	-	-	-	0.465	-	-	-	-	-	-	-	-	-
Subtotal: Recurring Cost	-	-	*10.136*	-	-	*1.195*	-	-	*1.683*	-	-	*1.255*	-	-	-	-	-	*1.255*
Non Recurring Cost																		
LVC-IA Version Upgrade/ Tech Refresh(†)	421.286	7	2.949	400.000	5	2.000	1,430.000	2	2.860	387.600	5	1.938	-	-	-	387.600	5	1.938
Subtotal: Non Recurring Cost	-	-	*2.949*	-	-	*2.000*	-	-	*2.860*	-	-	*1.938*	-	-	-	-	-	*1.938*
Subtotal: Flyaway Cost	**-**	**-**	***13.085***	**-**	**-**	***3.195***	**-**	**-**	***4.543***	**-**	**-**	***3.193***	**-**	**-**	**-**	**-**	**-**	***3.193***
Software Cost																		
Recurring Cost																		
LVC-IA PDSS(†)	1,250.667	12	15.008	1,260.000	2	2.520	578.800	5	2.894	944.000	2	1.888	-	-	-	944.000	2	1.888
LVC-IA Core System Integration	-	-	6.011	-	-	0.700	-	-	0.717	-	-	-	-	-	-	-	-	-
CTIA PDSS	-	-	15.334	-	-	1.700	-	-	1.722	-	-	1.718	-	-	-	-	-	1.718

Exhibit P-5, Cost Analysis: PB 2019 Army		Date: February 2018
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:	

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

Cost Elements	Prior Years			FY 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 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)
Subtotal: Recurring Cost	-	-	*36.353*	-	-	*4.920*	-	-	*5.333*	-	-	*3.606*	-	-	-	-	-	*3.606*
Subtotal: Software Cost	**-**	**-**	***36.353***	**-**	**-**	***4.920***	**-**	**-**	***5.333***	**-**	**-**	***3.606***	**-**	**-**	**-**	**-**	**-**	***3.606***
Support - Program Management Cost																		
Contractor Management	-	-	19.447	-	-	2.412	-	-	1.815	-	-	1.282	-	-	-	-	-	1.282
Subtotal: Support - Program Management Cost	**-**	**-**	***19.447***	**-**	**-**	***2.412***	**-**	**-**	***1.815***	**-**	**-**	***1.282***	**-**	**-**	**-**	**-**	**-**	***1.282***
Support - System Technical Support (STS) Cost																		
System Technical Support (STS)	-	-	-	-	-	0.650	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Support - System Technical Support (STS) Cost	**-**	**-**	**-**	**-**	**-**	***0.650***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Gross/Weapon System Cost	**3,131.136**	**22**	**68.885**	**1,862.833**	**6**	**11.177**	**-**	**-**	**11.691**	**1,154.429**	**7**	**8.081**	**-**	**-**	**-**	**1,154.429**	**7**	**8.081**

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Army	Quantity	6	0	7	-	7
	Total Obligation Authority	11.177	11.691	8.081	-	8.081
Total: Secondary Distribution	**Quantity**	**6**	**-**	**7**	**-**	**7**
	Total Obligation Authority	**11.177**	**11.691**	**8.081**	**-**	**8.081**

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2019 Army		Date: February 2018
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	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
LVC-IA Version Upgrade/ Tech Refresh		2017	Cole Engineering Services (T) / Orlando	C / CPFF	ACC Orlando, FL	Nov 2016	May 2017	5	400.000	Y		Jul 2015
LVC-IA Version Upgrade/ Tech Refresh		2018	Cole Engineering Services (T) / Orlando	C / CPFF	ACC Orlando, FL	Dec 2017	Feb 2018	2	1,430.000	Y		
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 PDSS		2017	Cole Engineering Services (P) / Orlando	C / CPFF	ACC Orlando, FL	Apr 2017	Jun 2017	2	1,260.000	Y		Jul 2015
LVC-IA PDSS		2018	Cole Engineering Services (P) / Orlando	C / CPFF	ACC Orlando, FL	Jun 2018	Aug 2018	5	578.800	Y		
LVC-IA PDSS		2019	Cole Engineering Services (P) / Orlando	C / CPFF	ACC Orland, FL	Dec 2018	Mar 2019	2	944.000	Y		

Remarks:
In FY16, the Basis of Issue Plan (BOIP) was changed from 15 to 12 sites.

In FY17, the deliveries for LVC-IA Version Upgrades/Tech Refresh commenced once the FY16 fieldings supporting the accelerated upgrades from Version 1 to Version 2 were completed; these deliveries continued the accelerating upgrades from Version 1 to Version 2 at 5 locations.

In FY18, the increase in unit cost for LVC-IA Version Upgrades/Tech Refresh is due to the additional integration requirements required to comply with the Army's Constructive Strategy to be completed by FY19. The deliveries of Version 3 upgrade commences in 2nd quarter FY18. Quantities for Version Upgrades/Tech Refresh and PDSS were transposed and will be corrected in a future cycle due to database being locked.

In FY19, deliveries continue to upgrade from Version 2 to Version 3 at 5 locations.

P-5A cost elements with no presence of a P-21 is due to the total cost being less than the $5 million threshold identified in the published FY 2019 President's Budget Submission (PB) Resource Formulation Guide (RFG). RFG, page 10-11, states, "If any of the cost elements on the P-21 is under $5 million, that element will not be generated."

Exhibit P-40, Budget Line Item Justification: PB 2019 Army	Date: February 2018
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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	298	604	-	214	-	214	287	204	195	72	-	1,874
Gross/Weapon System Cost *($ in Millions)*	1,101.319	47.962	45.718	33.080	-	33.080	46.156	34.420	23.543	16.059	-	1,348.257
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	1,101.319	47.962	45.718	33.080	-	33.080	46.156	34.420	23.543	16.059	-	1,348.257
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**1,101.319**	**47.962**	**45.718**	**33.080**	**-**	**33.080**	**46.156**	**34.420**	**23.543**	**16.059**	**-**	**1,348.257**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost *($ in Thousands)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Thousands)*	3,695.701	79.407	-	154.579	-	154.579	160.822	168.725	120.733	223.042	-	719.454

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, will enable CCTT to support Army Force 2025 and Beyond.

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023
Army	Quantity	484	0	214	-	214	255	204	115	72
	Total Obligation Authority	38.433	45.718	33.080	-	33.080	41.010	34.420	13.884	16.059
ANG	Quantity	24	-	-	-	-	28	-	70	-
	Total Obligation Authority	1.906	-	-	-	-	4.503	-	8.451	-
AR	Quantity	96	-	-	-	-	4	-	10	-
	Total Obligation Authority	7.623	-	-	-	-	0.643	-	1.208	-
Total: Secondary Distribution	**Quantity**	**604**	**-**	**214**	**-**	**214**	**287**	**204**	**195**	**72**
	Total Obligation Authority	**47.962**	**45.718**	**33.080**	**-**	**33.080**	**46.156**	**34.420**	**23.543**	**16.059**

Exhibit P-40, Budget Line Item Justification: PB 2019 Army	Date: February 2018
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	

Exhibits Schedule					Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 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	NA0170 / Close Combat Tactical Trainer	P-5a, P-21			298 / 1,101.319	604 / 47.962	- / 45.718	214 / 33.080	- / -	214 / 33.080
P-40	**Total Gross/Weapon System Cost**				**298 / 1,101.319**	**604 / 47.962**	**- / 45.718**	**214 / 33.080**	**- / -**	**214 / 33.080**

*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 2019 base procurement dollars in the amount of $33.080 million procures simulator modernization upgrades. A follow-on Production Contract called Manned Module Modernization (M3) will focus on fleet wide tech refresh and concurrency, and a Post Deployment Software Support (PDSS) contract will focus on software maintenance and cybersecurity. FY19 funds will procure hardware and software to enable a complete tech refresh of CCTT site infrastructure, with a focus on reducing gross hardware quantities through the use of virtualization capabilities. FY19 funding will also initiate the Non-Recurring Engineering (NRE) effort for a CCTT image generator tech refresh.

CCTT PDSS will provide services to CCTT fielded systems which includes: Software Maintenance and associated activities for preparing new block releases; Perfective Maintenance to support CCTT concurrency modification to the simulators; Adaptive Maintenance to support CCTT's close affiliation with the One Semi-Automated Forces (OneSAF), Synthetic Environment Core (SE Core), and the Live, Virtual and Constructive-Integrated Architecture (LVC-IA) programs; and Corrective maintenance to support fielded software baselines. It will provide Sustainment Engineering to allow the Government to sustain multiple software releases in the field and conduct Independent Test and Evaluation for verifying and validating the system as releases are prepared. It will provide product support to maintain the overall integrity and quality of the process and products during the operations phase of the system. It will provide the means for maintaining the CCTT systems security by providing Cybersecurity related services that comply with DOD guidance.

Modernization upgrades and software support are essential to continue providing long term operation and sustainability of the CCTT system which is a key training enabler for the Active, Reserve, and National Guard components for training in a simulated, fully interactive, virtual battlefield. The CCTT requirement exists to train and sustain collective (crew through battalion) tasks to meet Army readiness and Mission objectives. CCTT training also contributes to unit readiness by augmenting live training to train tasks that cannot be performed in a live environment due to safety, cost and/or environmental constraints.

The PDSS contract has been delayed and a 6 month-bridge contract implemented as an interim solution in FY17 to ensure continued support to the Warfighter. As a result, the FY17 PDSS costs are lower, as they reflect a 6 month period of performance until the newly competed contract can be implemented.

In 2019, Government program management costs will realign Civilian Pay, which was directed by an OSD directive to move to OMA SAG 435.

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.

Exhibit P-5, Cost Analysis: PB 2019 Army		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 70	**P-1 Line Item Number / Title:** 6650NA0170 / Close Combat Tactical Trainer	**Item Number / Title [DODIC]:** NA0170 / Close Combat Tactical Trainer
ID Code (A=Service Ready, B=Not Service Ready) :	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Procurement Quantity *(Units in Each)*	298	604	-	214	-	214
Gross/Weapon System Cost *($ in Millions)*	1,101.319	47.962	45.718	33.080	-	33.080
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	1,101.319	47.962	45.718	33.080	-	33.080
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**1,101.319**	**47.962**	**45.718**	**33.080**	**-**	**33.080**
(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)*	3,695.701	79.407	-	154.579	-	154.579

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

Cost Elements	Prior Years			FY 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 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																		
MODERNIZATION/ TECHNOLOGY REFRESH(†)	-	-	-	59.724	604	36.073	126.042	216	27.225	80.696	214	17.269	-	-	-	80.696	214	17.269
Subtotal: Recurring Cost	-	-	-	-	-	*36.073*	-	-	*27.225*	-	-	*17.269*	-	-	-	-	-	*17.269*
Subtotal: Flyaway Cost	**-**	**-**	**-**	**-**	**-**	***36.073***	**-**	**-**	***27.225***	**-**	**-**	***17.269***	**-**	**-**	**-**	**-**	**-**	***17.269***
Software Cost																		
Recurring Cost																		
Software Maintenance Support (PDSS)	-	-	1,002.733	-	-	5.182	-	-	12.412	-	-	14.118	-	-	-	-	-	14.118
Subtotal: Recurring Cost	-	-	*1,002.733*	-	-	*5.182*	-	-	*12.412*	-	-	*14.118*	-	-	-	-	-	*14.118*
Subtotal: Software Cost	**-**	**-**	***1,002.733***	**-**	**-**	***5.182***	**-**	**-**	***12.412***	**-**	**-**	***14.118***	**-**	**-**	**-**	**-**	**-**	***14.118***
Support - Program Management Cost																		
Contractor Management	-	-	33.578	-	-	1.796	-	-	1.596	-	-	1.090	-	-	-	-	-	1.090
Government Management	-	-	65.008	-	-	4.911	-	-	4.485	-	-	0.603	-	-	-	-	-	0.603
Subtotal: Support - Program Management Cost	**-**	**-**	***98.586***	**-**	**-**	***6.707***	**-**	**-**	***6.081***	**-**	**-**	***1.693***	**-**	**-**	**-**	**-**	**-**	***1.693***
Gross/Weapon System Cost	**3,695.701**	**298**	**1,101.319**	**79.407**	**604**	**47.962**	**-**	**-**	**45.718**	**154.579**	**214**	**33.080**	**-**	**-**	**-**	**154.579**	**214**	**33.080**

Exhibit P-5, Cost Analysis: PB 2019 Army		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 70	P-1 Line Item Number / Title: 6650NA0170 / Close Combat Tactical Trainer	Item Number / Title [DODIC]: NA0170 / Close Combat Tactical Trainer
ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:	

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Army	Quantity	484	0	214	-	214
	Total Obligation Authority	38.433	45.718	33.080	-	33.080
ANG	Quantity	24	-	-	-	-
	Total Obligation Authority	1.906	-	-	-	-
AR	Quantity	96	-	-	-	-
	Total Obligation Authority	7.623	-	-	-	-
Total: Secondary Distribution	**Quantity**	**604**	**-**	**214**	**-**	**214**
	Total Obligation Authority	**47.962**	**45.718**	**33.080**	**-**	**33.080**

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2019 Army		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 70	P-1 Line Item Number / Title: 6650NA0170 / Close Combat Tactical Trainer	Item Number / Title [DODIC]: NA0170 / Close Combat Tactical Trainer

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
MODERNIZATION/ TECHNOLOGY REFRESH		2017	TBS / TBS	C / TBD	ACC, Orlando Florida	Sep 2018	Aug 2019	604	59.720	N		Oct 2017
MODERNIZATION/ TECHNOLOGY REFRESH(†)		2018	TBS / TBS	C / TBD	ACC, Orlando Florida	Sep 2018	Aug 2019	216	126.040	N		
MODERNIZATION/ TECHNOLOGY REFRESH(†)		2019	TBS / TBS	C / TBD	ACC, Orlando Florida	Jun 2019	Jun 2020	214	80.700	N		

(†) indicates the presence of a P-21

Remarks:
Unit cost fluctuation from FY18 to FY19 for Modernization/Tech Refresh is due to the specific subcomponents within a simulator receiving a tech refresh change each year. The cost of these subcomponents varies, so the unit costs are expected to adjust annually based on the specific changes being applied to each unit

The program has identified cost efficiencies through economy of scale hardware purchases, streamlining the fielding process and concurrent NRE efforts which decrease the budget funding requirement in the areas of PMO, schedule, production and travel related to the recompete of Modernization/ Tech refresh. The recompete was shifted from Sep 17 to Sep 18. As a result, this award will use both FY17 and FY18 funding and is currently scheduled for Sep 18.

Exhibit P-21, Production Schedule: PB 2019 Army		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 70	**P-1 Line Item Number / Title:** 6650NA0170 / Close Combat Tactical Trainer	**Item Number / Title [DODIC]:** NA0170 / Close Combat Tactical Trainer

Cost Elements (Units in Each)							Fiscal Year 2018												Fiscal Year 2019												BALANCE
							Calendar Year 2018												Calendar Year 2019													
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2017	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
MODERNIZATION/ TECHNOLOGY REFRESH																															
	1	2018	ARMY	216	0	216												A -	-	-	-	-	-	-	-	-	-	5	18	193
	1	2019	ARMY	214	0	214																					A -	-	-	-	214
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2019 Army		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 70	**P-1 Line Item Number / Title:** 6650NA0170 / Close Combat Tactical Trainer	**Item Number / Title [DODIC]:** NA0170 / Close Combat Tactical Trainer

Cost Elements (Units in Each)							Fiscal Year 2020												Fiscal Year 2021												BALANCE
							Calendar Year 2020												Calendar Year 2021													
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2019	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
MODERNIZATION/ TECHNOLOGY REFRESH																															
	1	2018	ARMY	216	23	193	18	23	25	23	23	23	18	14	14	12															0
	1	2019	ARMY	214	0	214	-	-	-	-	-	-	-	-	4	18	21	21	21	21	21	21	21	21	12	12					0
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2019 Army		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 70	**P-1 Line Item Number / Title:** 6650NA0170 / Close Combat Tactical Trainer	**Item Number / Title [DODIC]:** NA0170 / Close Combat Tactical Trainer

MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Month)			Procurement Leadtime (Months)							
					Initial				Reorder			
		MSR For 2019	1-8-5 For 2019	MAX For 2019	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 - TBS	1	72	200	0	22	13	35	0	8	13	21

"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).

Exhibit P-40, Budget Line Item Justification: PB 2019 Army	Date: February 2018
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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	23	24	-	49	-	49	21	21	17	17	-	172
Gross/Weapon System Cost *($ in Millions)*	501.540	38.000	30.568	32.700	-	32.700	34.243	32.372	36.315	37.007	-	742.745
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	501.540	38.000	30.568	32.700	-	32.700	34.243	32.372	36.315	37.007	-	742.745
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**501.540**	**38.000**	**30.568**	**32.700**	**-**	**32.700**	**34.243**	**32.372**	**36.315**	**37.007**	**-**	**742.745**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost *($ in Thousands)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Thousands)*	21,806.087	1,583.333	-	667.347	-	667.347	1,630.619	1,541.524	2,136.176	2,176.882	-	4,318.285

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.

The Synthetic Training Environment (STE) 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 one world terrain, common authoritative data and models that is cloud-enabled through the Army Enterprise Network, and is service-based through the Common Operating Environment. The STE will be available for use anywhere a Soldier needs it and will include Soldier and Squad Immersive Virtual Training (S/SVT) capabilities.

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023
Army	Quantity	15	0	40	-	40	12	12	10	10
	Total Obligation Authority	25.445	30.568	22.285	-	22.285	19.567	18.498	21.362	21.769
ANG	Quantity	4	-	4	-	4	4	4	3	3
	Total Obligation Authority	5.580	-	4.629	-	4.629	6.522	6.166	6.409	6.531
AR	Quantity	5	-	5	-	5	5	5	4	4
	Total Obligation Authority	6.975	-	5.786	-	5.786	8.154	7.708	8.544	8.707
Total: Secondary Distribution	**Quantity**	**24**	**-**	**49**	**-**	**49**	**21**	**21**	**17**	**17**
	Total Obligation Authority	**38.000**	**30.568**	**32.700**	**-**	**32.700**	**34.243**	**32.372**	**36.315**	**37.007**

Exhibit P-40, Budget Line Item Justification: PB 2019 Army	Date: February 2018
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	

Exhibits Schedule					Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 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	NA0173 / Aviation Combined Arms Tactical Trainer	P-5a, P-21			23 / 501.540	24 / 38.000	- / 30.568	49 / 32.700	- / -	49 / 32.700
P-40	**Total Gross/Weapon System Cost**				**23 / 501.540**	**24 / 38.000**	**- / 30.568**	**49 / 32.700**	**- / -**	**49 / 32.700**

*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 2019 Base procurement dollars in the amount of $24.3 million supports AVCATT/NCM3 Post Deployment Software Support (PDSS), interoperability support, and replacement of obsolete technology. Interoperability support includes the maintenance of Authority to Operate for AVCATT and NCM3, upgrades to the OneSAF semiautonomous computer generated forces, support for interoperability with the Close Combat Tactical Trainer (CCTT), support for interoperability with the Universal Mission Simulator (UMS), and testing/fielding of integrated Live Virtual Constructive Integrating Architecture (LVC-IA).

Technology Refresh includes replacement of and modernization of AVCATT manned module hardware to include sensor video recording system, instrument panel display generator computers and simulator host computers in a virtualized configuration. AVCATT/NCM3 modernization will occur in parallel with platform concurrency upgrades that support the AH-64E v4 (phase 2 of 2), CH-47F v9.4, Common Operating Environment (COE), Integrated Digital Modem (IDM), Link 16 communications, Aircraft Survivability Equipment (ASE) updates, and UH-72 system upgrades. The aforementioned modernization upgrades are essential to enable the long term operational relevancy and sustainability of the AVCATT/NCM3 system, which is a key training enabler for the Active and National Guard components for training combined arms operations in a simulated, fully interactive, virtual battlefield. The AVCATT/NCM3 requirement exists to train and sustain collective (crew through battalion) tasks to meet Army readiness and mission objectives. AVCATT/NCM3 training also contributes to unit readiness by augmenting live training to train tasks that cannot be performed in a live training environment due to safety, cost, and environmental constraints.

AVCATT/NCM3 is an integral part of the Army training strategy, and through planned platform concurrency modernization.

In 2017, the AVCATT Army Acquisition Objective changed from 20 to 21 suites.

In 2018, AVCATT/ NCM3 will shift to an annual tech refresh cycle and complete one tech refresh on each of the 21 suites once per year. This will enable AVCATT/ NCM3 to support Army Force 2025 and beyond.

In 2019, Civilian Pay will be realigned to SAG 435 OMA as directed by OSD.

FY 2019 base funding in the amount of $8.4 million will support Near Term Capability for the STE program. The Near Term Capability will include the Common Synthetic Environment and Virtual Collective Trainers.

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.

Exhibit P-5, Cost Analysis: PB 2019 Army		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 70	**P-1 Line Item Number / Title:** 6800NA0173 / Aviation Combined Arms Tactical Trainer	**Item Number / Title [DODIC]:** NA0173 / Aviation Combined Arms Tactical Trainer
ID Code (A=Service Ready, B=Not Service Ready) :		**MDAP/MAIS Code:**

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Procurement Quantity *(Units in Each)*	23	24	-	49	-	49
Gross/Weapon System Cost *($ in Millions)*	501.540	38.000	30.568	32.700	-	32.700
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	501.540	38.000	30.568	32.700	-	32.700
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**501.540**	**38.000**	**30.568**	**32.700**	**-**	**32.700**
(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)*	21,806.087	1,583.333	-	667.347	-	667.347

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

Cost Elements	Prior Years			FY 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 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																		
NCM3 Suite(†)	4,077.000	2	8.154	2,898.333	3	8.695	-	-	-	-	-	-	-	-	-	-	-	-
Technology Refresh(†)	-	-	3.220	-	-	4.560	762.143	21	16.005	-	-	-	-	-	-	-	-	-
Virtualization(†)	-	-	-	191.667	12	2.300	-	-	-	-	-	-	-	-	-	-	-	-
Modernization / Tech Refresh(†)	-	-	-	-	-	-	-	-	-	654.238	21	13.739	-	-	-	654.238	21	13.739
STE Reconfigurable Virtual Trainer(†)	-	-	-	-	-	-	-	-	-	300.000	28	8.400	-	-	-	300.000	28	8.400
Subtotal: Recurring Cost	-	-	*11.374*	-	-	*15.555*	-	-	*16.005*	-	-	*22.139*	-	-	-	-	-	*22.139*
Subtotal: Flyaway Cost	**-**	**-**	***11.374***	**-**	**-**	***15.555***	**-**	**-**	***16.005***	**-**	**-**	***22.139***	**-**	**-**	**-**	**-**	**-**	***22.139***
Software Cost																		
Recurring Cost																		
Post Development Software Support	-	-	40.351	-	-	7.039	-	-	7.223	-	-	7.331	-	-	-	-	-	7.331
Subtotal: Recurring Cost	-	-	*40.351*	-	-	*7.039*	-	-	*7.223*	-	-	*7.331*	-	-	-	-	-	*7.331*
Subtotal: Software Cost	**-**	**-**	***40.351***	**-**	**-**	***7.039***	**-**	**-**	***7.223***	**-**	**-**	***7.331***	**-**	**-**	**-**	**-**	**-**	***7.331***
Support - Engineering Change Proposals Cost																		
Engineering Change Proposals	-	-	14.759	-	-	4.563	-	-	2.346	-	-	-	-	-	-	-	-	-

Exhibit P-5, Cost Analysis: PB 2019 Army		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 70	**P-1 Line Item Number / Title:** 6800NA0173 / Aviation Combined Arms Tactical Trainer	**Item Number / Title [DODIC]:** NA0173 / Aviation Combined Arms Tactical Trainer
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 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 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)
Subtotal: Support - Engineering Change Proposals Cost	**-**	**-**	***14.759***	**-**	**-**	***4.563***	**-**	**-**	***2.346***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Support - Program Management Cost																		
Government Management	-	-	429.979	-	-	3.948	-	-	3.589	-	-	1.804	-	-	-	-	-	1.804
Subtotal: Support - Program Management Cost	**-**	**-**	***429.979***	**-**	**-**	***3.948***	**-**	**-**	***3.589***	**-**	**-**	***1.804***	**-**	**-**	**-**	**-**	**-**	***1.804***
Support - System Technical Support (STS) Cost																		
System Technical Support (STS)	-	-	5.077	-	-	6.895	-	-	1.405	-	-	1.426	-	-	-	-	-	1.426
Subtotal: Support - System Technical Support (STS) Cost	**-**	**-**	***5.077***	**-**	**-**	***6.895***	**-**	**-**	***1.405***	**-**	**-**	***1.426***	**-**	**-**	**-**	**-**	**-**	***1.426***
Gross/Weapon System Cost	**21,806.087**	**23**	**501.540**	**1,583.333**	**24**	**38.000**	**-**	**-**	**30.568**	**667.347**	**49**	**32.700**	**-**	**-**	**-**	**667.347**	**49**	**32.700**

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Army	Quantity	15	0	40	-	40
	Total Obligation Authority	25.445	30.568	22.285	-	22.285
ANG	Quantity	4	-	4	-	4
	Total Obligation Authority	5.580	-	4.629	-	4.629
AR	Quantity	5	-	5	-	5
	Total Obligation Authority	6.975	-	5.786	-	5.786
Total: Secondary Distribution	**Quantity**	**24**	**-**	**49**	**-**	**49**
	Total Obligation Authority	**38.000**	**30.568**	**32.700**	**-**	**32.700**

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2019 Army		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 70	P-1 Line Item Number / Title: 6800NA0173 / Aviation Combined Arms Tactical Trainer	Item Number / Title [DODIC]: NA0173 / Aviation Combined Arms Tactical Trainer

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
NCM3 Suite		2017	Cymstar / Broken Arrow, OK	Option / FFP	ACC Orlando, FL	Mar 2017	Mar 2018	3	2,898.330	Y		
Technology Refresh		2018	Cole Engineering Services, Inc / Orlando, FL	C / FFP	ACC Orlando, FL	Apr 2018	Apr 2019	21	762.140	N		
Virtualization		2017	Cole Engineering Services, Inc / Orlando, FL	C / FFP	ACC Orlando FL	May 2017	May 2018	12	191.670	N		
Modernization / Tech Refresh(†)		2019	TBD / Orlando, FL	C / FFP	ACC Orlando FL	Jun 2019	Jun 2020	21	654.240	N		
STE Reconfigurable Virtual Trainer(†)		2019	TBD / Orlando, FL	C / Various	ACC Orlando FL	Feb 2019	Oct 2019	28	300.000	N		

(†) indicates the presence of a P-21

Remarks:
NCM3 Suite - Procurement are options on existing contracts exercised in 2QFY17. The one-year lead time is based upon historical data for the amount of time required to produce and deliver an NCM3.

Technology refresh - Award date is for award of a new task order to an existing IDIQ contract. Tech refresh in 2018 includes replacement of obsolete data switches, partial replacement of electronic control loading servo control switches, and modernization of manned module computers.

Virtualization - Award dates are for awards of new task orders to an existing IDIQ contract. The award in 2017 includes upgrades to the training environment and Semi Autonomous Forces computers (SAF).

HVAC Obsolescence - Procurement are options on existing contracts exercised in 2QFY17 for 9 units.

Modernization / Tech Refresh - This competitive acquisition is expected to be awarded in June 2019 and will include requirements for the delivery of Modernization and tech refresh of various components of AVCATT and NCM3 to include Helmet Mounted Displays (HMD), Image Generators, Computer Servers, Input/Output (I/O) subsystem, Video distribution and display equipment and aircraft concurrency upgrades. A fully virtualized and modernized AVCATT/NCM3 hardware/software baseline, capable of drawing from a local computing resource pool (local cloud), is the expected deliverable.

STE Reconfigurable Virtual Trainer - This award will take place on the Other Transaction Agreement (OTA) authority in Feb 19 for a total of 28 units.

Exhibit P-21, Production Schedule: PB 2019 Army		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 70	**P-1 Line Item Number / Title:** 6800NA0173 / Aviation Combined Arms Tactical Trainer	**Item Number / Title [DODIC]:** NA0173 / Aviation Combined Arms Tactical Trainer

Cost Elements (Units in Each)							Fiscal Year 2017												Fiscal Year 2018												
										Calendar Year 2017														Calendar Year 2018									
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2016	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	BALANCE
Modernization / Tech Refresh																															
	1	2019	ARMY	21	0	21																									21
STE Reconfigurable Virtual Trainer																															
	2	2019	ARMY	28	0	28																									28
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP		

Exhibit P-21, Production Schedule: PB 2019 Army		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 70	**P-1 Line Item Number / Title:** 6800NA0173 / Aviation Combined Arms Tactical Trainer	**Item Number / Title [DODIC]:** NA0173 / Aviation Combined Arms Tactical Trainer

Cost Elements (Units in Each)							Fiscal Year 2019												Fiscal Year 2020											BALANCE
										Calendar Year 2019														Calendar Year 2020								
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2018	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
Modernization / Tech Refresh																														
	1	2019	ARMY	21	0	21									A -	-	-	-	-	-	-	-	-	-	-	5	5	5	6	0
STE Reconfigurable Virtual Trainer																														
	2	2019	ARMY	28	0	28					A -	-	-	-	-	-	-	-	14	-	-	14								0
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2019 Army		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 70	**P-1 Line Item Number / Title:** 6800NA0173 / Aviation Combined Arms Tactical Trainer	**Item Number / Title [DODIC]:** NA0173 / Aviation Combined Arms Tactical Trainer

MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Year)			Procurement Leadtime (Months)							
					Initial				Reorder			
		MSR For 2019	1-8-5 For 2019	MAX For 2019	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 - Orlando, FL	1	3	21	6	6	13	19	0	0	0	0
2	TBD - Orlando, FL	1	3	28	0	6	13	19	0	0	0	0

Remarks:
Note - Lead Times are estimates based on historical information.

"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).

Exhibit P-40, Budget Line Item Justification: PB 2019 Army	Date: February 2018
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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	51	15	-	33	-	33	12	36	36	-	-	183
Gross/Weapon System Cost *($ in Millions)*	49.209	13.852	5.406	25.161	-	25.161	18.337	16.797	14.352	7.308	-	150.422
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	49.209	13.852	5.406	25.161	-	25.161	18.337	16.797	14.352	7.308	-	150.422
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**49.209**	**13.852**	**5.406**	**25.161**	**-**	**25.161**	**18.337**	**16.797**	**14.352**	**7.308**	**-**	**150.422**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost *($ in Thousands)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Thousands)*	964.882	923.467	-	762.455	-	762.455	1,528.083	466.583	398.667	-	-	821.978

Description:

The Games for Training (GFT) Program prepares Soldiers and leaders for combined arms maneuver operations for Force 2025 and beyond in support of the Joint Force and allies with tailorable and scalable training and mission rehearsal capabilities. Gaming Technology provides an application to train and rehearse convoy-operations, platoon level, mounted infantry tactics, dismounted operations, rules-of-engagement training, cross-cultural communications training, Improvised explosive device (IED) defeat training, route clearance, ground air coordination, Unmanned Aerial Vehicle (UAV) integration, Stryker Collective Training (SVCT), and other small unit and individual training and mission rehearsal requirements. The GFT program satisfies the Active, the National Guard, and the 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. GFT comprehensively trains Company and below formations to operate in today's dynamic combat environment. GFT trains higher multi-echelon units and staffs without troops to meet Combatant Commanders' requirements.

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023
Army	Quantity	5	0	25	-	25	-	18	15	-
	Total Obligation Authority	9.074	5.406	20.620	-	20.620	-	8.399	5.980	4.312
ANG	Quantity	10	-	5	-	5	12	14	21	-
	Total Obligation Authority	4.499	-	2.838	-	2.838	18.337	6.532	8.372	2.631
AR	Quantity	-	-	3	-	3	-	4	-	-
	Total Obligation Authority	0.279	-	1.703	-	1.703	-	1.866	-	0.365
Total: Secondary Distribution	**Quantity**	**15**	**-**	**33**	**-**	**33**	**12**	**36**	**36**	**-**
	Total Obligation Authority	**13.852**	**5.406**	**25.161**	**-**	**25.161**	**18.337**	**16.797**	**14.352**	**7.308**

Exhibit P-40, Budget Line Item Justification: PB 2019 Army	Date: February 2018
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		

Exhibits Schedule					Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 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	NA0176 / Gaming Technology In Support of Army Training	P-5a			51 / 49.209	15 / 13.852	- / 5.406	33 / 25.161	- / -	33 / 25.161
P-40	**Total Gross/Weapon System Cost**				**51 / 49.209**	**15 / 13.852**	**- / 5.406**	**33 / 25.161**	**- / -**	**33 / 25.161**

*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 2019 Base procurement dollars in the amount of $25.161 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 in preparation for Force 2025 and beyond. FY19 funds supports the procurement and fielding of 2 suites to support Stryker Virtual Collective Training (SVCT), in addition to 31 classroom suites. The base dollars also performs the concurrency, verification, validation and assessment (VV&A) of the Virtual BattleSpace 3 (VBS3) software license that provides Army Enterprise use rights. Funding procures VBS3 training and technical support, as well as commercial VBS3 software to provide areas of training competency such as engineering tasks, call for fire, and the generation of supporting 3D models. Additionally, funding procures data rights supporting the GFT Program; FY19 is the first year that starts this procurement to allow for full and open competition for future software modifications as required.

Fielding support includes logistical provisioning for de-confliction and coordination with receiving locations as well as oversight for meeting network and cyber requirements. New Equipment Training reflects the creation of training materials and delivery of training for new suites.

Government Management will provide program management, engineering and technical oversight, and travel for the GFT program. 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).

The increase in the Gross/Weapon System Unit cost from FY18 to FY19 is due to increase software cost associated with the procurement of commercial data rights supporting the GFT Program; this procurement will provide the Army a fully capable game application available for all individuals, institutions, agencies, and units for training and education purposes. Additionally, this effort will include delivery of the game based training software with an Army-wide license, integration of the software on Government Furnished Equipment (GFE) PCs, fielding, training and technical support with Army data rights.

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.

Exhibit P-5, Cost Analysis: PB 2019 Army		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 70	**P-1 Line Item Number / Title:** 6860NA0176 / Gaming Technology In Support of Army Training	**Item Number / Title [DODIC]:** NA0176 / Gaming Technology In Support of Army Training
ID Code (A=Service Ready, B=Not Service Ready) :	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Procurement Quantity *(Units in Each)*	51	15	-	33	-	33
Gross/Weapon System Cost *($ in Millions)*	49.209	13.852	5.406	25.161	-	25.161
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	49.209	13.852	5.406	25.161	-	25.161
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**49.209**	**13.852**	**5.406**	**25.161**	**-**	**25.161**
(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)*	964.882	923.467	-	762.455	-	762.455

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

Cost Elements	Prior Years			FY 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 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																		
New Gaming Hardware Suites(†)	171.364	11	1.885	175.000	11	1.925	-	-	-	175.000	31	5.425	-	-	-	175.000	31	5.425
Gaming Systems Refresh(†)	100.974	38	3.837	-	-	-	200.000	10	2.000	-	-	-	-	-	-	-	-	-
Stryker Virtual Collective Trainer(†)	3,380.000	1	3.380	1,166.000	4	4.664	-	-	-	1,166.500	2	2.333	-	-	-	1,166.500	2	2.333
Subtotal: Recurring Cost	-	-	*9.102*	-	-	*6.589*	-	-	*2.000*	-	-	*7.758*	-	-	-	-	-	*7.758*
Subtotal: Flyaway Cost	**-**	**-**	***9.102***	**-**	**-**	***6.589***	**-**	**-**	***2.000***	**-**	**-**	***7.758***	**-**	**-**	**-**	**-**	**-**	***7.758***
Hardware Cost																		
Non Recurring Cost																		
Gaming Toolkits/ Ancillary Equipment	-	-	0.023	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RMF Hardware	-	-	1.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SVCT Spares	-	-	-	-	-	-	-	-	-	-	-	0.750	-	-	-	-	-	0.750
Subtotal: Non Recurring Cost	-	-	*1.023*	-	-	-	-	-	-	-	-	*0.750*	-	-	-	-	-	*0.750*
Subtotal: Hardware Cost	**-**	**-**	***1.023***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***0.750***	**-**	**-**	**-**	**-**	**-**	***0.750***
Software Cost																		
Recurring Cost																		
VBS3 License	-	-	23.026	-	-	3.786	-	-	-	-	-	4.165	-	-	-	-	-	4.165

Exhibit P-5, Cost Analysis: PB 2019 Army		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 70	**P-1 Line Item Number / Title:** 6860NA0176 / Gaming Technology In Support of Army Training	**Item Number / Title [DODIC]:** NA0176 / Gaming Technology In Support of Army Training
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 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 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)
VBS3 Software Concurrency	-	-	-	-	-	1.502	-	-	2.089	-	-	2.298	-	-	-	-	-	2.298
Subtotal: Recurring Cost	-	-	*23.026*	-	-	*5.288*	-	-	*2.089*	-	-	*6.463*	-	-	-	-	-	*6.463*
Non Recurring Cost																		
Modifications and Upgrades	-	-	2.998	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Data Rights	-	-	-	-	-	-	-	-	-	-	-	6.008	-	-	-	-	-	6.008
Subtotal: Non Recurring Cost	-	-	*2.998*	-	-	-	-	-	-	-	-	*6.008*	-	-	-	-	-	*6.008*
Subtotal: Software Cost	**-**	**-**	***26.024***	**-**	**-**	***5.288***	**-**	**-**	***2.089***	**-**	**-**	***12.471***	**-**	**-**	**-**	**-**	**-**	***12.471***
Support - Acceptance Testing Cost																		
Acceptance Test	-	-	-	-	-	-	-	-	-	-	-	0.166	-	-	-	-	-	0.166
Subtotal: Support - Acceptance Testing Cost	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***0.166***	**-**	**-**	**-**	**-**	**-**	***0.166***
Support - Fielding Cost																		
Fielding	-	-	2.377	-	-	-	-	-	-	-	-	1.085	-	-	-	-	-	1.085
Subtotal: Support - Fielding Cost	**-**	**-**	***2.377***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***1.085***	**-**	**-**	**-**	**-**	**-**	***1.085***
Support - Government Furnished Materials Cost																		
Government Furnished Materials	-	-	2.119	-	-	0.533	-	-	0.533	-	-	0.565	-	-	-	-	-	0.565
Subtotal: Support - Government Furnished Materials Cost	**-**	**-**	***2.119***	**-**	**-**	***0.533***	**-**	**-**	***0.533***	**-**	**-**	***0.565***	**-**	**-**	**-**	**-**	**-**	***0.565***
Support - New Equipment Training (NET) Cost																		
Equipment	-	-	1.301	-	-	-	-	-	-	-	-	1.504	-	-	-	-	-	1.504
Subtotal: Support - New Equipment Training (NET) Cost	**-**	**-**	***1.301***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***1.504***	**-**	**-**	**-**	**-**	**-**	***1.504***
Support - Program Management Cost																		
Government Management	-	-	6.397	-	-	1.442	-	-	0.784	-	-	0.862	-	-	-	-	-	0.862
Subtotal: Support - Program Management Cost	**-**	**-**	***6.397***	**-**	**-**	***1.442***	**-**	**-**	***0.784***	**-**	**-**	***0.862***	**-**	**-**	**-**	**-**	**-**	***0.862***
Support - System Technical Support (STS) Cost																		
System Technical Support (STS)	-	-	0.866	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Exhibit P-5, Cost Analysis: PB 2019 Army		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 70	**P-1 Line Item Number / Title:** 6860NA0176 / Gaming Technology In Support of Army Training	**Item Number / Title [DODIC]:** NA0176 / Gaming Technology In Support of Army Training
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 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 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)
Subtotal: Support - System Technical Support (STS) Cost	-	-	***0.866***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost	**964.882**	**51**	**49.209**	**923.467**	**15**	**13.852**	**-**	**-**	**5.406**	**762.455**	**33**	**25.161**	**-**	**-**	**-**	**762.455**	**33**	**25.161**

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Army	Quantity	5	0	25	-	25
	Total Obligation Authority	9.074	5.406	20.620	-	20.620
ANG	Quantity	10	-	5	-	5
	Total Obligation Authority	4.499	-	2.838	-	2.838
AR	Quantity	-	-	3	-	3
	Total Obligation Authority	0.279	-	1.703	-	1.703
Total: Secondary Distribution	**Quantity**	**15**	**-**	**33**	**-**	**33**
	Total Obligation Authority	**13.852**	**5.406**	**25.161**	**-**	**25.161**

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2019 Army		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 70	P-1 Line Item Number / Title: 6860NA0176 / Gaming Technology In Support of Army Training	Item Number / Title [DODIC]: NA0176 / Gaming Technology In Support of Army Training

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
New Gaming Hardware Suites		2017	CDWG / Chicago, IL	C / FFP	ACC Orlando, FL	Jan 2017	May 2017	11	175.000	Y		
New Gaming Hardware Suites		2019	TBD / TBD	TBD	ACC Orlando, FL	Jan 2019	Mar 2019	31	175.000	Y		
Gaming Systems Refresh		2018	TBD / TBD	TBD	ACC Orlando, FL	Jan 2018	Mar 2018	10	200.000	Y		
Stryker Virtual Collective Trainer		2017	AMRDEC-PIF / Huntsville, AL	MIPR	ACC, Huntsville, AL	Aug 2017	Mar 2018	4	1,166.000	N		
Stryker Virtual Collective Trainer		2019	AMRDEC-PIF / Huntsville, AL	MIPR	ACC Huntsville, AL	Dec 2018	Mar 2019	2	1,166.500	N		

Remarks:
New Gaming Hardware Suites/ Gaming System Refresh are COTS procured through the ARMY CHESS Program.

FY18 unit costs for New Gaming Hardware Suites and Gaming Hardware Refresh cost elements should reflect a Unit Cost of $175.000 thousand; this information is not accurately reflected in the P-5 and P-5a and will be updated in the next available future cycle.

AMRDEC-PIF: Army Aviation and Missile Research Development and Engineering Center - Prototype Integration Facility

Exhibit P-40, Budget Line Item Justification: PB 2019 Army	Date: February 2018
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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	299	202	123	914	-	914	24	15	18	15	Continuing	Continuing
Gross/Weapon System Cost *($ in Millions)*	296.208	4.963	5.564	4.270	-	4.270	3.030	2.514	9.882	2.650	Continuing	Continuing
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	296.208	4.963	5.564	4.270	-	4.270	3.030	2.514	9.882	2.650	Continuing	Continuing
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**296.208**	**4.963**	**5.564**	**4.270**	**-**	**4.270**	**3.030**	**2.514**	**9.882**	**2.650**	**Continuing**	**Continuing**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost *($ in Thousands)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Thousands)*	990.662	24.569	45.236	4.672	-	4.672	126.250	167.600	549.000	176.667	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); 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 and Chinook.

Army Acquisition Objective (AAO): AN/GSM-286 - 45; AN/GSM-287 - 67; AN/GSM-439 - 37; AN/GSM-440 - 32; AN/GSM-705 - 26; AN/GSM-421A(V)2 - 26; AN/GSM-26(V)1 - 161; AN/GSM-26(V)2 - 37; AN/GSM-422 - 1; Secondary Reference Standards Set - 11

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023
Army	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	2.692	4.459	1.949	-	1.949	1.788	1.484	4.414	1.563
ANG	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	2.271	1.105	2.321	-	2.321	1.242	1.030	5.468	1.087
Total: Secondary Distribution	**Quantity**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
	Total Obligation Authority	**4.963**	**5.564**	**4.270**	**-**	**4.270**	**3.030**	**2.514**	**9.882**	**2.650**

Exhibit P-40, Budget Line Item Justification: PB 2019 Army		Date: February 2018
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 2019 base procurement dollars in the amount of $4.270 million support acquisition of low phase noise signal generators, multi-function electrical calibrators (to support various electronic test, measurement and diagnostic equipment used on aviation, communication, missile and radar systems), pneumatic pressure indicators (to support Army pitot-static test equipment (i.e., Army aviation altitude and airspeed testers)), and instrument controllers (used to display all Army calibration procedures and to automate the execution of most Army calibration procedures). These items are components of various calibration sets and may be used in tactical calibration shelters.

The FY 2019 funding request was reduced for $2.487 million to account for the availability of prior year execution balances.

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.

Exhibit P-40, Budget Line Item Justification: PB 2019 Army	Date: February 2018
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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	2,592	2,176	731	2,719	945	3,664	772	710	628	743	Continuing	Continuing
Gross/Weapon System Cost *($ in Millions)*	730.779	35.737	37.644	76.295	9.495	85.790	44.180	49.961	61.827	59.321	Continuing	Continuing
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	730.779	35.737	37.644	76.295	9.495	85.790	44.180	49.961	61.827	59.321	Continuing	Continuing
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**730.779**	**35.737**	**37.644**	**76.295**	**9.495**	**85.790**	**44.180**	**49.961**	**61.827**	**59.321**	**Continuing**	**Continuing**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost *($ in Thousands)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Thousands)*	281.936	16.423	51.497	28.060	10.048	23.414	57.228	70.368	98.451	79.840	Continuing	Continuing

Description:

The Integrated Family of Test Equipment (IFTE) includes the Maintenance Support Device (MSD) for at-system automatic test 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 - 34,610; AV-MSD - 5002; NGATS - 173

Exhibit P-40, Budget Line Item Justification: PB 2019 Army		Date: February 2018
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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023
Army	Quantity	1,070	71	2,257	945	3,202	394	357	318	376
	Total Obligation Authority	20.253	27.724	49.851	9.495	59.346	38.851	34.045	43.271	40.743
ANG	Quantity	923	586	371	-	371	303	283	249	295
	Total Obligation Authority	12.518	8.797	25.308	-	25.308	4.262	14.862	17.566	17.464
AR	Quantity	183	74	91	-	91	75	70	61	72
	Total Obligation Authority	2.966	1.123	1.136	-	1.136	1.067	1.054	0.990	1.114
Total: Secondary Distribution	**Quantity**	**2,176**	**731**	**2,719**	**945**	**3,664**	**772**	**710**	**628**	**743**
	Total Obligation Authority	**35.737**	**37.644**	**76.295**	**9.495**	**85.790**	**44.180**	**49.961**	**61.827**	**59.321**

Exhibit P-40, Budget Line Item Justification: PB 2019 Army		Date: February 2018
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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 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, P-21	A		2,587 / 605.256	2,172 / 20.449	727 / 10.925	2,705 / 20.917	945 / 9.495	3,650 / 30.412
P-5	MB4004 / Next Generation Automatic Test System (NGATS)	P-5a, P-21	A		5 / 125.523	4 / 15.288	4 / 26.719	14 / 55.378	- / -	14 / 55.378
P-40	**Total Gross/Weapon System Cost**				**2,592 / 730.779**	**2,176 / 35.737**	**731 / 37.644**	**2,719 / 76.295**	**945 / 9.495**	**3,664 / 85.790**

*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 2019 Base procurement dollars in the amount of $76.295 million support acquisition of 14 Next Generation Automatic Test Systems (NGATS) and 2705 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 2019 funding will complete buy out of the entire NGATS US Army Training and Doctrine Command (TRADOC) requirement and replacement of obsolete DSESTS at 10 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, Mine-Resistant Ambush-Protected (MRAP) vehicle, and the Army's diesel-powered tactical wheeled vehicles.

The FY19 OCO includes $9.495 million to replace obsolete MSDs deployed in Korea and the European theater and to support other overseas contingency operation initiatives.

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.

Exhibit P-5, Cost Analysis: PB 2019 Army		Date: February 2018
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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Procurement Quantity *(Units in Each)*	2,587	2,172	727	2,705	945	3,650
Gross/Weapon System Cost *($ in Millions)*	605.256	20.449	10.925	20.917	9.495	30.412
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	605.256	20.449	10.925	20.917	9.495	30.412
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**605.256**	**20.449**	**10.925**	**20.917**	**9.495**	**30.412**
(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)*	233.961	9.415	15.028	7.733	10.048	8.332

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

Cost Elements	Prior Years			FY 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 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																		
MSD/MSD Internal Combustion Engine (ICE) (Rugged)(†)	15.515	22,924	355.658	12.711	439	5.580	11.272	364	4.103	11.493	877	10.079	11.492	451	5.183	11.492	1,328	15.262
MSD/MSD ICE (Light)(†)	-	-	-	-	-	-	8.563	364	3.117	8.729	900	7.856	8.725	477	4.162	8.728	1,377	12.018
Aviation MSD/Aircraft Notebook(†)	-	-	-	3.437	1,733	5.956	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Recurring Cost	-	-	*355.666*	-	-	*11.536*	-	-	*7.220*	-	-	*17.935*	-	-	*9.345*	-	-	*27.280*
Non Recurring Cost																		
Support Equipment/ Accessories	-	-	0.380	-	-	0.844	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Non Recurring Cost	-	-	*0.380*	-	-	*0.844*	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Hardware Cost	**-**	**-**	***356.046***	**-**	**-**	***12.380***	**-**	**-**	***7.220***	**-**	**-**	***17.935***	**-**	**-**	***9.345***	**-**	**-**	***27.280***
Package Fielding Cost																		
Recurring Cost																		
New Equipment Training/Fielding Support	-	-	4.636	-	-	0.525	-	-	0.597	-	-	0.269	-	-	0.100	-	-	0.369
Shipping Equipment to the Field	-	-	0.632	-	-	0.100	-	-	0.061	-	-	0.096	-	-	0.050	-	-	0.146
Subtotal: Recurring Cost	-	-	*5.268*	-	-	*0.625*	-	-	*0.658*	-	-	*0.365*	-	-	*0.150*	-	-	*0.515*

Exhibit P-5, Cost Analysis: PB 2019 Army		Date: February 2018
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 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 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)
Subtotal: Package Fielding Cost	**-**	**-**	***5.268***	**-**	**-**	***0.625***	**-**	**-**	***0.658***	**-**	**-**	***0.365***	**-**	**-**	***0.150***	**-**	**-**	***0.515***
Logistics Cost																		
Recurring Cost																		
Technical and Logistics Data/ Services	-	-	-	-	-	0.528	-	-	0.190	-	-	0.327	-	-	-	-	-	0.327
Technical Publications	-	-	-	-	-	-	-	-	0.135	-	-	0.185	-	-	-	-	-	0.185
Subtotal: Recurring Cost	-	-	-	-	-	*0.528*	-	-	*0.325*	-	-	*0.512*	-	-	-	-	-	*0.512*
Subtotal: Logistics Cost	**-**	**-**	**-**	**-**	**-**	***0.528***	**-**	**-**	***0.325***	**-**	**-**	***0.512***	**-**	**-**	**-**	**-**	**-**	***0.512***
Support - Initial Spares and Repair Parts Cost																		
Initial Spares and Repair Parts	-	-	0.820	-	-	0.176	-	-	0.177	-	-	-	-	-	-	-	-	-
Subtotal: Support - Initial Spares and Repair Parts Cost	**-**	**-**	***0.820***	**-**	**-**	***0.176***	**-**	**-**	***0.177***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Support - Production Engineering Cost																		
Production Engineering	-	-	13.895	-	-	2.813	-	-	0.580	-	-	0.598	-	-	-	-	-	0.598
Subtotal: Support - Production Engineering Cost	**-**	**-**	***13.895***	**-**	**-**	***2.813***	**-**	**-**	***0.580***	**-**	**-**	***0.598***	**-**	**-**	**-**	**-**	**-**	***0.598***
Support - Program Management Cost																		
Government Management	-	-	7.964	-	-	0.693	-	-	0.707	-	-	-	-	-	-	-	-	-
Subtotal: Support - Program Management Cost	**-**	**-**	***7.964***	**-**	**-**	***0.693***	**-**	**-**	***0.707***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Support - Quality Assurance Cost																		
Quality Assurance	-	-	0.553	-	-	0.070	-	-	0.071	-	-	0.073	-	-	-	-	-	0.073
Subtotal: Support - Quality Assurance Cost	**-**	**-**	***0.553***	**-**	**-**	***0.070***	**-**	**-**	***0.071***	**-**	**-**	***0.073***	**-**	**-**	**-**	**-**	**-**	***0.073***
Support - System Engineering Cost																		
System Engineering	-	-	220.710	-	-	1.145	-	-	1.018	-	-	1.168	-	-	-	-	-	1.168
Subtotal: Support - System Engineering Cost	**-**	**-**	***220.710***	**-**	**-**	***1.145***	**-**	**-**	***1.018***	**-**	**-**	***1.168***	**-**	**-**	**-**	**-**	**-**	***1.168***
Support - System Technical Support (STS) Cost																		
System Technical Support (STS)	-	-	-	-	-	0.278	-	-	0.141	-	-	0.193	-	-	-	-	-	0.193
Subtotal: Support - System Technical Support (STS) Cost	**-**	**-**	**-**	**-**	**-**	***0.278***	**-**	**-**	***0.141***	**-**	**-**	***0.193***	**-**	**-**	**-**	**-**	**-**	***0.193***

Exhibit P-5, Cost Analysis: PB 2019 Army		Date: February 2018
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 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 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	-	-	-	-	-	1.741	-	-	0.028	-	-	0.073	-	-	-	-	-	0.073
Subtotal: Support - System Test and Evaluation Cost	**-**	**-**	**-**	**-**	**-**	***1.741***	**-**	**-**	***0.028***	**-**	**-**	***0.073***	**-**	**-**	**-**	**-**	**-**	***0.073***
Gross/Weapon System Cost	**233.961**	**2,587**	**605.256**	**9.415**	**2,172**	**20.449**	**15.028**	**727**	**10.925**	**7.733**	**2,705**	**20.917**	**10.048**	**945**	**9.495**	**8.332**	**3,650**	**30.412**

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Army	Quantity	1,066	67	2,249	945	3,194
	Total Obligation Authority	4.965	1.005	15.240	9.495	24.735
ANG	Quantity	923	586	365	-	365
	Total Obligation Authority	12.518	8.797	4.541	-	4.541
AR	Quantity	183	74	91	-	91
	Total Obligation Authority	2.966	1.123	1.136	-	1.136
Total: Secondary Distribution	**Quantity**	**2,172**	**727**	**2,705**	**945**	**3,650**
	Total Obligation Authority	**20.449**	**10.925**	**20.917**	**9.495**	**30.412**

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2019 Army		Date: February 2018
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	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
MSD/MSD Internal Combustion Engine (ICE) (Rugged)(†)		2017	Miltope Corporation / Hope Hull, AL	C / FFP	ACC-New Jersey	Mar 2017	Jul 2017	439	12.710	Y		
MSD/MSD Internal Combustion Engine (ICE) (Rugged)(†)		2018	TBS (1) / TBD (1)	C / FFP	ACC-Redstone	Feb 2018	Jul 2018	364	11.270	Y		Aug 2017
MSD/MSD Internal Combustion Engine (ICE) (Rugged)(†)		2019	TBS (1) / TBD (1)	C / FFP	ACC-Redstone	Feb 2019	Jun 2019	1,328	11.490	Y		
MSD/MSD ICE (Light)(†)		2018	TBS (2) / TBD (2)	C / FFP	ACC-New Jersey	Nov 2017	Apr 2018	364	8.560	Y		Jul 2017
MSD/MSD ICE (Light)(†)		2019	TBS (2) / TBD (2)	C / FFP	ACC-New Jersey	Feb 2019	May 2019	1,377	8.730	Y		
Aviation MSD/Aircraft Notebook		2017	NCS Technologies, Inc. / Gainesville, VA	C / FFP	ACC-Redstone	Sep 2017	Nov 2017	1,733	3.440	Y		

(†) indicates the presence of a P-21

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 60 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 50 percent rugged and 50 percent light configurations.

Exhibit P-21, Production Schedule: PB 2019 Army		Date: February 2018
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 (Units in Each)							Fiscal Year 2017												Fiscal Year 2018											BALANCE
										Calendar Year 2017														Calendar Year 2018								
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2016	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
MSD/MSD Internal Combustion Engine (ICE) (Rugged)																														
Prior Years Deliveries: 22924																														
	1	2017	ARMY	439	0	439						A -	-	-	-	50	50	75	75	75	75	39									0
	2	2018	ARMY	364	0	364																	A -	-	-	-	-	50	50	50	214
	2	2019	ARMY	1,328	0	1,328																									1,328
MSD/MSD ICE (Light)																														
	3	2018	ARMY	364	0	364														A -	-	-	-	-	50	50	50	50	50	50	64
	3	2019	ARMY	1,377	0	1,377																									1,377
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2019 Army		Date: February 2018
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 (Units in Each)							Fiscal Year 2019												Fiscal Year 2020												BALANCE
							Calendar Year 2019												Calendar Year 2020													
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2018	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
MSD/MSD Internal Combustion Engine (ICE) (Rugged)																															
Prior Years Deliveries: 22924																															
	1	2017	ARMY	439	439	0																									0
	2	2018	ARMY	364	150	214	50	50	50	50	14																				0
	2	2019	ARMY	1,328	0	1,328					A -	-	-	-	50	50	100	100	150	150	150	150	150	150	128						0
MSD/MSD ICE (Light)																															
	3	2018	ARMY	364	300	64	50	14																							0
	3	2019	ARMY	1,377	0	1,377					A -	-	-	50	50	100	100	100	150	150	150	150	150	150	77						0
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2019 Army		Date: February 2018
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

MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Year)			Procurement Leadtime (Months)							
					Initial				Reorder			
		MSR For 2019	1-8-5 For 2019	MAX For 2019	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	Miltope Corporation - Hope Hull, AL	500	1,500	4,000	0	6	3	9	0	5	5	10
2	TBS (1) - TBD (1)	50	1,000	2,500	14	4	6	10	0	4	6	10
3	TBS (2) - TBD (2)	50	1,000	2,500	7	1	5	6	0	4	5	9

Remarks:
Production rates are annual rates.

These items are being procured by other customers from the same production line; therefore, orders below the minimum production rate or lower than the 1-8-5 rate are economical.

"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).

Exhibit P-5, Cost Analysis: PB 2019 Army		Date: February 2018
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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Procurement Quantity *(Units in Each)*	5	4	4	14	-	14
Gross/Weapon System Cost *($ in Millions)*	125.523	15.288	26.719	55.378	-	55.378
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	125.523	15.288	26.719	55.378	-	55.378
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**125.523**	**15.288**	**26.719**	**55.378**	**-**	**55.378**
(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)*	25,104.600	3,822.000	6,679.750	3,955.571	-	3,955.571

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

Cost Elements	Prior Years			FY 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 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(†)	4,746.200	5	23.731	2,500.000	4	10.000	5,000.000	4	20.000	2,816.000	14	39.424	-	-	-	2,816.000	14	39.424
Low-Rate Initial Production (LRIP) Upgrade	-	-	-	-	-	-	-	-	-	300.000	2	0.600	-	-	-	300.000	2	0.600
Subtotal: Recurring Cost	-	-	*23.731*	-	-	*10.000*	-	-	*20.000*	-	-	*40.024*	-	-	-	-	-	*40.024*
Subtotal: Hardware Cost	**-**	**-**	***23.731***	**-**	**-**	***10.000***	**-**	**-**	***20.000***	**-**	**-**	***40.024***	**-**	**-**	**-**	**-**	**-**	***40.024***
Software Cost																		
Recurring Cost																		
Test Program Set Support	-	-	15.227	-	-	0.347	-	-	0.346	-	-	1.618	-	-	-	-	-	1.618
Subtotal: Recurring Cost	-	-	*15.227*	-	-	*0.347*	-	-	*0.346*	-	-	*1.618*	-	-	-	-	-	*1.618*
Subtotal: Software Cost	**-**	**-**	***15.227***	**-**	**-**	***0.347***	**-**	**-**	***0.346***	**-**	**-**	***1.618***	**-**	**-**	**-**	**-**	**-**	***1.618***
Logistics Cost																		
Recurring Cost																		
Technical and Logistics Data/ Services	-	-	2.500	-	-	1.200	-	-	0.800	-	-	0.520	-	-	-	-	-	0.520
Subtotal: Recurring Cost	-	-	*2.500*	-	-	*1.200*	-	-	*0.800*	-	-	*0.520*	-	-	-	-	-	*0.520*
Subtotal: Logistics Cost	**-**	**-**	***2.500***	**-**	**-**	***1.200***	**-**	**-**	***0.800***	**-**	**-**	***0.520***	**-**	**-**	**-**	**-**	**-**	***0.520***

Exhibit P-5, Cost Analysis: PB 2019 Army		Date: February 2018
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:**

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

Cost Elements	Prior Years			FY 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 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 - Initial Spares and Repair Parts Cost																		
Initial Spares and Repair Parts	-	-	16.184	-	-	1.831	-	-	3.000	-	-	3.193	-	-	-	-	-	3.193
Subtotal: Support - Initial Spares and Repair Parts Cost	**-**	**-**	***16.184***	**-**	**-**	***1.831***	**-**	**-**	***3.000***	**-**	**-**	***3.193***	**-**	**-**	**-**	**-**	**-**	***3.193***
Support - Production Engineering Cost																		
Production Engineering	-	-	17.668	-	-	1.061	-	-	1.050	-	-	5.988	-	-	-	-	-	5.988
Subtotal: Support - Production Engineering Cost	**-**	**-**	***17.668***	**-**	**-**	***1.061***	**-**	**-**	***1.050***	**-**	**-**	***5.988***	**-**	**-**	**-**	**-**	**-**	***5.988***
Support - Program Management Cost																		
Government Management	-	-	5.876	-	-	0.849	-	-	0.600	-	-	1.635	-	-	-	-	-	1.635
Subtotal: Support - Program Management Cost	**-**	**-**	***5.876***	**-**	**-**	***0.849***	**-**	**-**	***0.600***	**-**	**-**	***1.635***	**-**	**-**	**-**	**-**	**-**	***1.635***
Support - System Technical Support (STS) Cost																		
System Technical Support (STS)	-	-	44.337	-	-	-	-	-	0.923	-	-	2.400	-	-	-	-	-	2.400
Subtotal: Support - System Technical Support (STS) Cost	**-**	**-**	***44.337***	**-**	**-**	**-**	**-**	**-**	***0.923***	**-**	**-**	***2.400***	**-**	**-**	**-**	**-**	**-**	***2.400***
Gross/Weapon System Cost	**25,104.600**	**5**	**125.523**	**3,822.000**	**4**	**15.288**	**6,679.750**	**4**	**26.719**	**3,955.571**	**14**	**55.378**	**-**	**-**	**-**	**3,955.571**	**14**	**55.378**

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Army	Quantity	4	4	8	-	8
	Total Obligation Authority	15.288	26.719	34.611	-	34.611
ANG	Quantity	-	-	6	-	6
	Total Obligation Authority	-	-	20.767	-	20.767
Total: Secondary Distribution	**Quantity**	**4**	**4**	**14**	**-**	**14**
	Total Obligation Authority	**15.288**	**26.719**	**55.378**	**-**	**55.378**

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2019 Army		Date: February 2018
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	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
Next Generation Automatic Test System(†)		2017	Boeing Company / St. Louis	C / FFP	ACC-New Jersey	Jan 2017	Jan 2018	4	2,500.000	Y		
Next Generation Automatic Test System(†)		2018	Boeing Company / St. Louis	C / FFP	ACC-New Jersey	Jan 2018	Jan 2019	4	5,000.000	Y		
Next Generation Automatic Test System(†)		2019	Boeing Company / St. Louis	C / FFP	ACC-New Jersey	Jan 2019	Jan 2020	14	2,816.000	Y		

(†) indicates the presence of a P-21

Exhibit P-21, Production Schedule: PB 2019 Army		Date: February 2018
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 (Units in Each)							Fiscal Year 2017												Fiscal Year 2018											BALANCE
										Calendar Year 2017														Calendar Year 2018									
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2016	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
Next Generation Automatic Test System																														
Prior Years Deliveries: 5																														
	1	2017	ARMY	4	0	4				A -	-	-	-	-	-	-	-	-	-	-	-	1	-	-	1	-	-	1	-	-	1
	1	2018	ARMY	4	0	4																A -	-	-	-	-	-	-	-	-	4
	1	2019	ARMY	14	0	14																									14
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2019 Army		Date: February 2018
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 (Units in Each)							Fiscal Year 2019												Fiscal Year 2020												BALANCE
										Calendar Year 2019														Calendar Year 2020									
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2018	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
Next Generation Automatic Test System																															
Prior Years Deliveries: 5																															
	1	2017	ARMY	4	3	1	1																								0
	1	2018	ARMY	4	0	4	-	-	-	1	-	1	-	1	-	1															0
	1	2019	ARMY	14	0	14				A -	-	-	-	-	-	-	-	-	-	-	-	1	1	1	1	1	1	1	1	1	5
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2019 Army		Date: February 2018
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 (Units in Each)							Fiscal Year 2021												Fiscal Year 2022												BALANCE
							Calendar Year 2021												Calendar Year 2022													
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2020	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
Next Generation Automatic Test System																															
Prior Years Deliveries: 5																															
	1	2017	ARMY	4	4	0																									0
	1	2018	ARMY	4	4	0																									0
	1	2019	ARMY	14	9	5	2	2	1																						0
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2019 Army		Date: February 2018
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)							
					Initial				Reorder			
		MSR For 2019	1-8-5 For 2019	MAX For 2019	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	12	20	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).

Exhibit P-40, Budget Line Item Justification: PB 2019 Army	Date: February 2018
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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	1,028	704	188	374	-	374	300	423	300	304	Continuing	Continuing
Gross/Weapon System Cost *($ in Millions)*	324.468	7.482	7.771	9.806	-	9.806	8.915	7.868	10.100	8.459	Continuing	Continuing
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	324.468	7.482	7.771	9.806	-	9.806	8.915	7.868	10.100	8.459	Continuing	Continuing
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**324.468**	**7.482**	**7.771**	**9.806**	**-**	**9.806**	**8.915**	**7.868**	**10.100**	**8.459**	**Continuing**	**Continuing**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost *($ in Thousands)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Thousands)*	315.630	10.628	41.335	26.219	-	26.219	29.717	18.600	33.667	27.826	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). 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 - 412; Oscilloscope (High End) - 495; Oscilloscope (Low End) - 1294; RF Power Meter Test Set - 586

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023
Army	Quantity	409	92	166	-	166	127	168	127	128
	Total Obligation Authority	3.842	3.318	4.203	-	4.203	3.761	3.125	4.298	3.610
ANG	Quantity	192	75	135	-	135	115	177	113	115
	Total Obligation Authority	2.369	2.899	3.637	-	3.637	3.406	3.289	3.782	3.150
AR	Quantity	103	21	73	-	73	58	78	60	61
	Total Obligation Authority	1.271	1.554	1.966	-	1.966	1.748	1.454	2.020	1.699
Total:	**Quantity**	**704**	**188**	**374**	**-**	**374**	**300**	**423**	**300**	**304**

Exhibit P-40, Budget Line Item Justification: PB 2019 Army			Date: February 2018
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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023
Secondary Distribution	Total Obligation Authority	7.482	7.771	9.806	-	9.806	8.915	7.868	10.100	8.459

Exhibit P-40, Budget Line Item Justification: PB 2019 Army	Date: February 2018
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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 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		1,028 / 324.468	704 / 7.482	188 / 7.771	374 / 9.806	- / -	374 / 9.806
P-40	**Total Gross/Weapon System Cost**				**1,028 / 324.468**	**704 / 7.482**	**188 / 7.771**	**374 / 9.806**	**- / -**	**374 / 9.806**

*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 2019 Base procurement dollars in the amount of $9.806 million support acquisition of additional quantities of the Telecommunications System Test Set, the RF Power Meter, the High End Oscilloscope and the Low End Oscilloscope. TEMOD uses multi-year Indefinite Delivery Indefinite Quantity Firm Fixed Price contracts. Procurements in FY19 include 141 TS-4544 Telecommunication System Test Sets, 68 OS-305 Oscilloscopes, 61 TS-4548 Power Meter Test Sets, and 104 OS-307 Oscilloscopes. 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.

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.

Exhibit P-5, Cost Analysis: PB 2019 Army		Date: February 2018
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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Procurement Quantity *(Units in Each)*	1,028	704	188	374	-	374
Gross/Weapon System Cost *($ in Millions)*	324.468	7.482	7.771	9.806	-	9.806
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	324.468	7.482	7.771	9.806	-	9.806
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**324.468**	**7.482**	**7.771**	**9.806**	**-**	**9.806**
(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)*	315.630	10.628	41.335	26.219	-	26.219

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

Cost Elements	Prior Years			FY 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 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	40	1.400	35.000	29	1.015	35.000	20	0.700	35.000	141	4.935	-	-	-	35.000	141	4.935
Oscilloscope High End, OS-305(†)	11.000	119	1.309	11.000	90	0.990	11.000	80	0.880	11.000	68	0.748	-	-	-	11.000	68	0.748
Radio Frequency (RF) Power Meter Test Set(†)	9.000	350	3.150	9.000	100	0.900	9.000	90	0.810	9.000	61	0.549	-	-	-	9.000	61	0.549
Oscilloscope Low End, OS-307(†)	3.500	360	1.260	3.500	318	1.113	3.500	600	2.100	3.500	104	0.364	-	-	-	3.500	104	0.364
Radio Test Set, AN/PRM-36(†)	-	-	-	1.698	172	0.292	-	-	-	-	-	-	-	-	-	-	-	-
Maintenance Fixtures	-	-	3.988	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Support Equipment	435.047	616	267.989	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Recurring Cost	-	-	*279.096*	-	-	*4.310*	-	-	*4.490*	-	-	*6.596*	-	-	-	-	-	*6.596*
Subtotal: Hardware Cost	**-**	**-**	***279.096***	**-**	**-**	***4.310***	**-**	**-**	***4.490***	**-**	**-**	***6.596***	**-**	**-**	**-**	**-**	**-**	***6.596***
Package Fielding Cost																		
Recurring Cost																		
New Equipment Training/Fielding Support	-	-	2.846	-	-	0.100	-	-	-	-	-	0.030	-	-	-	-	-	0.030

Exhibit P-5, Cost Analysis: PB 2019 Army		Date: February 2018
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 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 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)
Subtotal: Recurring Cost	-	-	*2.846*	-	-	*0.100*	-	-	-	-	-	*0.030*	-	-	-	-	-	*0.030*
Subtotal: Package Fielding Cost	**-**	**-**	***2.846***	**-**	**-**	***0.100***	**-**	**-**	**-**	**-**	**-**	***0.030***	**-**	**-**	**-**	**-**	**-**	***0.030***
Logistics Cost																		
Recurring Cost																		
Logistics Services/ Support	-	-	0.563	-	-	0.629	-	-	0.728	-	-	0.743	-	-	-	-	-	0.743
Subtotal: Recurring Cost	-	-	*0.563*	-	-	*0.629*	-	-	*0.728*	-	-	*0.743*	-	-	-	-	-	*0.743*
Subtotal: Logistics Cost	**-**	**-**	***0.563***	**-**	**-**	***0.629***	**-**	**-**	***0.728***	**-**	**-**	***0.743***	**-**	**-**	**-**	**-**	**-**	***0.743***
Support - Data Cost																		
Technical Publications	-	-	5.716	-	-	0.050	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Support - Data Cost	**-**	**-**	***5.716***	**-**	**-**	***0.050***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Support - Engineering Change Proposals Cost																		
Engineering Change Proposals	-	-	0.915	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Support - Engineering Change Proposals Cost	**-**	**-**	***0.915***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Support - Initial Spares and Repair Parts Cost																		
Initial Spares and Repair Parts	-	-	1.994	-	-	0.090	-	-	0.040	-	-	0.030	-	-	-	-	-	0.030
Subtotal: Support - Initial Spares and Repair Parts Cost	**-**	**-**	***1.994***	**-**	**-**	***0.090***	**-**	**-**	***0.040***	**-**	**-**	***0.030***	**-**	**-**	**-**	**-**	**-**	***0.030***
Support - Production Engineering Cost																		
Production Engineering	-	-	4.319	-	-	1.198	-	-	1.421	-	-	1.449	-	-	-	-	-	1.449
Subtotal: Support - Production Engineering Cost	**-**	**-**	***4.319***	**-**	**-**	***1.198***	**-**	**-**	***1.421***	**-**	**-**	***1.449***	**-**	**-**	**-**	**-**	**-**	***1.449***
Support - Program Management Cost																		
Government Management	-	-	21.147	-	-	1.005	-	-	0.825	-	-	0.279	-	-	-	-	-	0.279
Subtotal: Support - Program Management Cost	**-**	**-**	***21.147***	**-**	**-**	***1.005***	**-**	**-**	***0.825***	**-**	**-**	***0.279***	**-**	**-**	**-**	**-**	**-**	***0.279***
Support - Quality Assurance Cost																		
Quality Assurance	-	-	0.300	-	-	0.100	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Support - Quality Assurance Cost	**-**	**-**	***0.300***	**-**	**-**	***0.100***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**

Exhibit P-5, Cost Analysis: PB 2019 Army		Date: February 2018
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 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 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 Technical Support (STS) Cost																		
System Technical Support (STS)	-	-	7.572	-	-	-	-	-	0.267	-	-	0.679	-	-	-	-	-	0.679
Subtotal: Support - System Technical Support (STS) Cost	**-**	**-**	***7.572***	**-**	**-**	**-**	**-**	**-**	***0.267***	**-**	**-**	***0.679***	**-**	**-**	**-**	**-**	**-**	***0.679***
Gross/Weapon System Cost	**315.630**	**1,028**	**324.468**	**10.628**	**704**	**7.482**	**41.335**	**188**	**7.771**	**26.219**	**374**	**9.806**	**-**	**-**	**-**	**26.219**	**374**	**9.806**

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Army	Quantity	409	92	166	-	166
	Total Obligation Authority	3.842	3.318	4.203	-	4.203
ANG	Quantity	192	75	135	-	135
	Total Obligation Authority	2.369	2.899	3.637	-	3.637
AR	Quantity	103	21	73	-	73
	Total Obligation Authority	1.271	1.554	1.966	-	1.966
Total: Secondary Distribution	**Quantity**	**704**	**188**	**374**	**-**	**374**
	Total Obligation Authority	**7.482**	**7.771**	**9.806**	**-**	**9.806**

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2019 Army		Date: February 2018
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	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
Telecommunications System Test Set		2017	TBS-1 / TBD	C / FFP	ACC-New Jersey	May 2018	Oct 2018	29	35.000	Y		Apr 2018
Telecommunications System Test Set		2018	TBS-1 / TBD	C / FFP	ACC-New Jersey	Apr 2018	Jul 2018	20	35.000	Y		
Telecommunications System Test Set		2019	TBS-1 / TBD	C / FFP	ACC-New Jersey	Mar 2019	Jul 2019	141	35.000	Y		
Oscilloscope High End, OS-305		2017	TBS-2 / TBD	C / FFP	ACC-Redstone	Apr 2018	Jun 2018	90	11.000	Y		Feb 2018
Oscilloscope High End, OS-305		2018	TBS-2 / TBD	C / FFP	ACC-Redstone	Apr 2018	Jul 2018	80	11.000	Y		
Oscilloscope High End, OS-305		2019	TBS-2 / TBD	C / FFP	ACC-Redstone	Mar 2019	Jul 2019	68	11.000	Y		
Radio Frequency (RF) Power Meter Test Set		2017	TBS-3 / TBD	C / FFP	ACC-Redstone	Jun 2018	Jun 2018	100	9.000	Y		Apr 2018
Radio Frequency (RF) Power Meter Test Set		2018	TBS-3 / TBD	C / FFP	ACC-Redstone	Apr 2018	Jul 2018	90	9.000	Y		
Radio Frequency (RF) Power Meter Test Set		2019	TBS-3 / TBD	C / FFP	ACC-Redstone	Mar 2019	Jul 2019	61	9.000	Y		
Oscilloscope Low End, OS-307		2017	TBS-4 / TBD	C / FFP	ACC-Redstone	Apr 2018	Jun 2018	318	3.500	Y		Feb 2018
Oscilloscope Low End, OS-307		2018	TBS-4 / TBD	C / FFP	ACC-Redstone	Apr 2018	Jul 2018	600	3.500	Y		
Oscilloscope Low End, OS-307		2019	TBS-4 / TBD	C / FFP	ACC-Redstone	Mar 2019	Jul 2019	104	3.500	Y		
Radio Test Set, AN/PRM-36		2017	DRS Sustainment Systems, Inc., / St. Louis, MO	C / FFP	ACC-Redstone	Jul 2017	Jan 2018	172	1.700	Y		

Remarks:
The Telecommunications System Test Set, the High End Oscilloscope, the RF Power Meter Test Set, the Low End Oscilloscope and the Radio Test Set are commercial off-the-shelf (COTS) items.

Exhibit P-40, Budget Line Item Justification: PB 2019 Army	Date: February 2018
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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	378	447	342	4	346	466	466	466	465	Continuing	Continuing
Gross/Weapon System Cost *($ in Millions)*	13.288	3.149	3.956	4.368	0.033	4.401	3.951	3.951	3.951	3.953	Continuing	Continuing
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	13.288	3.149	3.956	4.368	0.033	4.401	3.951	3.951	3.951	3.953	Continuing	Continuing
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**13.288**	**3.149**	**3.956**	**4.368**	**0.033**	**4.401**	**3.951**	**3.951**	**3.951**	**3.953**	**Continuing**	**Continuing**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost *($ in Thousands)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Thousands)*	-	8.331	8.850	12.772	8.250	12.720	8.479	8.479	8.479	8.501	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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023
Army	Quantity	378	447	342	4	346	466	466	466	465
	Total Obligation Authority	3.149	3.956	4.368	0.033	4.401	3.951	3.951	3.951	3.953
Total: Secondary Distribution	**Quantity**	**378**	**447**	**342**	**4**	**346**	**466**	**466**	**466**	**465**
	Total Obligation Authority	**3.149**	**3.956**	**4.368**	**0.033**	**4.401**	**3.951**	**3.951**	**3.951**	**3.953**

Justification:

FY 2019 Base procurement dollars in the amount of $4.368 million supports the Active Army by procuring 342 M25A1 Stabilized Binoculars.

FY 2019 Overseas Contingency Operations (OCO) procurement dollars in the amount of $0.033 supports the Active Army by procuring 4 M25A1 Stabilized Binoculars.

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.

Exhibit P-40, Budget Line Item Justification: PB 2019 Army	Date: February 2018
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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	2,607.177	30.503	13.500	9.879	18.000	27.879	9.878	9.878	9.879	9.880	-	2,718.574
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	2,607.177	30.503	13.500	9.879	18.000	27.879	9.878	9.878	9.879	9.880	-	2,718.574
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**2,607.177**	**30.503**	**13.500**	**9.879**	**18.000**	**27.879**	**9.878**	**9.878**	**9.879**	**9.880**	**-**	**2,718.574**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost *($ in Thousands)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Thousands)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The Rapid Equipping Force (REF) supports Combatant Command (COCOM)/Army Service Component Command (ASCC) 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 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 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 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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023
Army	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	30.503	13.500	9.879	18.000	27.879	9.878	9.878	9.879	9.880

Exhibit P-40, Budget Line Item Justification: PB 2019 Army		Date: February 2018
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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023
Total: Secondary Distribution	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	30.503	13.500	9.879	18.000	27.879	9.878	9.878	9.879	9.880

Exhibit P-40, Budget Line Item Justification: PB 2019 Army	Date: February 2018
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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 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				- / 2,607.177	- / 30.503	- / 13.500	- / 9.879	- / 18.000	- / 27.879
P-40	**Total Gross/Weapon System Cost**				**- / 2,607.177**	**- / 30.503**	**- / 13.500**	**- / 9.879**	**- / 18.000**	**- / 27.879**

*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:
FY19 procurement dollars in the amount of $9.879 million (Base) and $18.000 million (OCO) meets urgently needed state-of-the-art technology for immediate warfighter needs for deployed and pre-deploying forces across all ASCCs of the COCOMs and the Global Response Force (GRF).

The FY19 OCO funding in the amount of $18.000 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.

The REF may purchase technologies to support: Tactical Satellite Communications (SATCOM) and communications systems; tactical and small Combat Out Post/Forward Operating Base (COP/FOB) Intelligence, Surveillance, and Reconnaissance (ISR) and Force Protection systems; Counter Unmanned Aerial Systems (CUAS); Electronic Warfare (EW) systems; Non-Tactical Vehicles (NTV); Persistent Duration UAS, and Subterranean (SubT) Operations capabilities.

The REF capabilities cross all Warfighter Functions:

1. Mission and Command:	$ 994K (Base) and $1,812K (OCO)	10.06%
2. Movement and Maneuver:	$1,636K (Base) and $2,981K (OCO)	16.56%
3. Intelligence:	$2,277K (Base) and $4,149K (OCO)	23.05%
4. Fires:	$32K (Base) and $58K (OCO)	.32%
5. Sustainment:	$1,572K (Base) and $2,864K (OCO)	15.91%
6. Protection:	$3,368K (Base) and $6,136K (OCO)	34.10%

The FY19 breakout is base on the FY17 requirements trend.

Exhibit P-5, Cost Analysis: PB 2019 Army		Date: February 2018
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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	2,607.177	30.503	13.500	9.879	18.000	27.879
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	2,607.177	30.503	13.500	9.879	18.000	27.879
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**2,607.177**	**30.503**	**13.500**	**9.879**	**18.000**	**27.879**
(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 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 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	-	-	401.335	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mission Command	-	-	-	-	-	4.494	-	-	2.033	-	-	0.994	-	-	1.812	-	-	2.806
Movement and Maneuver	-	-	-	-	-	8.867	-	-	4.043	-	-	1.636	-	-	2.981	-	-	4.617
Intelligence	-	-	-	-	-	3.875	-	-	1.617	-	-	2.277	-	-	4.149	-	-	6.426
Fires	-	-	-	-	-	0.317	-	-	0.147	-	-	0.032	-	-	0.058	-	-	0.090
Sustainment	-	-	-	-	-	4.301	-	-	1.887	-	-	1.572	-	-	2.864	-	-	4.436
Protection	-	-	-	-	-	8.649	-	-	3.773	-	-	3.368	-	-	6.136	-	-	9.504
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	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Exhibit P-5, Cost Analysis: PB 2019 Army		Date: February 2018
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 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 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)
Subtotal: Recurring Cost	-	-	*2,607.177*	-	-	*30.503*	-	-	*13.500*	-	-	*9.879*	-	-	*18.000*	-	-	*27.879*
Subtotal: Flyaway Cost	**-**	**-**	***2,607.177***	**-**	**-**	***30.503***	**-**	**-**	***13.500***	**-**	**-**	***9.879***	**-**	**-**	***18.000***	**-**	**-**	***27.879***
Gross/Weapon System Cost	**-**	**-**	**2,607.177**	**-**	**-**	**30.503**	**-**	**-**	**13.500**	**-**	**-**	**9.879**	**-**	**-**	**18.000**	**-**	**-**	**27.879**

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Army	Quantity	-	-	-	-	-
	Total Obligation Authority	30.503	13.500	9.879	18.000	27.879
Total: Secondary Distribution	**Quantity**	**-**	**-**	**-**	**-**	**-**
	Total Obligation Authority	**30.503**	**13.500**	**9.879**	**18.000**	**27.879**

Exhibit P-40, Budget Line Item Justification: PB 2019 Army	Date: February 2018
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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	10	0	13	-	-	-	-	-	-	-	-	23
Gross/Weapon System Cost *($ in Millions)*	1,898.447	44.082	60.047	54.043	6.000	60.043	80.133	73.728	90.860	97.548	-	2,404.888
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	1,898.447	44.082	60.047	54.043	6.000	60.043	80.133	73.728	90.860	97.548	-	2,404.888
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**1,898.447**	**44.082**	**60.047**	**54.043**	**6.000**	**60.043**	**80.133**	**73.728**	**90.860**	**97.548**	**-**	**2,404.888**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost *($ in Thousands)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Thousands)*	189,844.700	-	4,619.000	-	-	-	-	-	-	-	-	104,560.348

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. 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.

Exhibit P-40, Budget Line Item Justification: PB 2019 Army	Date: February 2018
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.

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023
Army	Quantity	-	13	0	-	0	-	-	-	-
	Total Obligation Authority	44.082	60.047	54.043	6.000	60.043	80.133	73.728	90.860	97.548
Total: Secondary Distribution	**Quantity**	**-**	**13**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
	Total Obligation Authority	**44.082**	**60.047**	**54.043**	**6.000**	**60.043**	**80.133**	**73.728**	**90.860**	**97.548**

Exhibit P-40, Budget Line Item Justification: PB 2019 Army	Date: February 2018
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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 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		- / 320.528	- / 10.218	5 / 19.552	- / 13.033	- / -	- / 13.033
P-5	MA0782 / Commercial Intrusion Detection Systems (IDS)	P-5a			7 / 251.375	- / 5.490	- / 6.325	- / 8.602	- / -	- / 8.602
P-5	MA0783 / Other Physical Security Measures Equip	P-5a, P-21			3 / 1,326.544	0 / 28.374	8 / 34.170	- / 32.408	- / 6.000	- / 38.408
P-40	**Total Gross/Weapon System Cost**				**10 / 1,898.447**	**0 / 44.082**	**13 / 60.047**	**- / 54.043**	**- / 6.000**	**- / 60.043**

*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:
FY19 Base procurement funding in the amount of $54.043 million provides funding for SIDS (MA0781) in the amount of $13.033 million, CIDS (MA0782) in the amount of $8.602 million and Other Physical Security Measures Equipment in the amount of $32.408 million:

-$13.033 million provides installation of ICIDS (MA0781) at five (5) sites: Iowa AAP, IA; Camp Parks, CA; Devens, MA; Camp Buchanan, PR; and Pine Bluff, AR. Funding supports a balanced investment strategy for the Army approved force structure and requirements. All quantities and funding is for Active Components.

-$8.602 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.

- $32.408 million procures AIE (MA0783) systems at three (3) Tier I and 15 Tier II sites. The Tier I sites will include Fort Drum, NY and Fort Jackson, SC, and Picatinny Arsenal, NJ. The Tier II sites include Deseret Chemical Depot, UT; Presidio of Monterey, CA; Fort Indiantown Gap, PA; Detroit Arsenal, MI; Fort AP Hill, VA; Fort Hamilton, NY; Tooele Army Depot, UT; Fort McCoy, WI; Camp Parks, CA; Fort Buchanan, PR; Camp Atterbury, IN; Camp Shelby, MS; Camp Robinson, AR; Fort Hunter Liggett, CA; and Hays Army Hospital, CA. The AIE systems will be installed 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. ACPEP provides standardized access control point configurations. All quantities and funding are for Active Components.

FY19 OCO procurement funding of $6.000 million supports upgrades and expands existing Advantor camera protections for AO Patriot.

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.

Exhibit P-5, Cost Analysis: PB 2019 Army		Date: February 2018
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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Procurement Quantity *(Units in Each)*	-	-	5	-	-	-
Gross/Weapon System Cost *($ in Millions)*	320.528	10.218	19.552	13.033	-	13.033
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	320.528	10.218	19.552	13.033	-	13.033
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**320.528**	**10.218**	**19.552**	**13.033**	**-**	**13.033**
(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)*	-	-	3,910.400	-	-	-

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

Cost Elements	Prior Years			FY 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 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(†)	29,420.000	1	29.420	3,576.000	2	7.152	3,190.000	5	15.950	1,847.800	5	9.239	-	-	-	1,847.800	5	9.239
Government Program Management Support	-	-	4.741	-	-	0.900	-	-	1.393	-	-	1.436	-	-	-	-	-	1.436
SETA Contract Support	-	-	2.113	-	-	1.199	-	-	1.223	-	-	1.335	-	-	-	-	-	1.335
Prime Contractor PM	-	-	2.825	-	-	0.967	-	-	0.986	-	-	1.023	-	-	-	-	-	1.023
Subtotal: Recurring Cost	-	-	*39.099*	-	-	*10.218*	-	-	*19.552*	-	-	*13.033*	-	-	-	-	-	*13.033*
Subtotal: Flyaway Cost	**-**	**-**	***39.099***	**-**	**-**	***10.218***	**-**	**-**	***19.552***	**-**	**-**	***13.033***	**-**	**-**	**-**	**-**	**-**	***13.033***
Support - Data Cost																		
Support Data Data	-	-	281.429	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Support - Data Cost	**-**	**-**	***281.429***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Gross/Weapon System Cost	**-**	**-**	**320.528**	**-**	**-**	**10.218**	**3,910.400**	**5**	**19.552**	**-**	**-**	**13.033**	**-**	**-**	**-**	**-**	**-**	**13.033**

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Army	Quantity	-	5	0	-	0
	Total Obligation Authority	10.218	19.552	13.033	-	13.033
Total:	**Quantity**	**-**	**5**	**-**	**-**	**-**

Exhibit P-5, Cost Analysis: PB 2019 Army		Date: February 2018
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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Secondary Distribution	Total Obligation Authority	10.218	19.552	13.033	-	13.033

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2019 Army		Date: February 2018
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	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(†)		2017	Minuteman Security Solutions / New Bern, NC	C / IDIQ	NATICK, MA	Mar 2017	Sep 2018	2	3,576.000	Y		
Hardware(†)		2018	Minuteman Security Solutions / New Bern, NC	C / IDDQ	Ft. Belvoir	Mar 2018	Jul 2019	5	3,190.000	Y		
Hardware(†)		2019	Minuteman Security Solutions / New Bern, NC	Option / IDIQ	Ft. Belvoir, VA	Mar 2019	Jul 2020	5	1,847.800	Y		

(†) indicates the presence of a P-21

Exhibit P-21, Production Schedule: PB 2019 Army		Date: February 2018
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 (Units in Each)							Fiscal Year 2017												Fiscal Year 2018											Balance
										Calendar Year 2017														Calendar Year 2018								
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2016	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
Hardware																														
Prior Years Deliveries: 1																														
	1	2017	ARMY	2	0	2						A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	0
	1	2018	ARMY	5	0	5																		A -	-	-	-	-	-	-	5
	1	2019	ARMY	5	0	5																									5
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2019 Army		Date: February 2018
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 (Units in Each)							Fiscal Year 2019												Fiscal Year 2020											BALANCE
										Calendar Year 2019														Calendar Year 2020								
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2018	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
Hardware																														
Prior Years Deliveries: 1																														
	1	2017	ARMY	2	2	0																								0
	1	2018	ARMY	5	0	5	-	-	-	-	-	-	-	-	-	1	1	1	1	-	-	1									0
	1	2019	ARMY	5	0	5						A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	1	2
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2019 Army		Date: February 2018
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 (Units in Each)							Fiscal Year 2021												Fiscal Year 2022												Balance
										Calendar Year 2021														Calendar Year 2022									
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2020	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
Hardware																															
Prior Years Deliveries: 1																															
	1	2017	ARMY	2	2	0																									0
	1	2018	ARMY	5	5	0																									0
	1	2019	ARMY	5	3	2	-	-	-	2																					0
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP		

Exhibit P-21, Production Schedule: PB 2019 Army		Date: February 2018
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)							
					Initial				Reorder			
		MSR For 2019	1-8-5 For 2019	MAX For 2019	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	10	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 Task 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).

Exhibit P-5, Cost Analysis: PB 2019 Army		Date: February 2018
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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Procurement Quantity *(Units in Each)*	7	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	251.375	5.490	6.325	8.602	-	8.602
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	251.375	5.490	6.325	8.602	-	8.602
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**251.375**	**5.490**	**6.325**	**8.602**	**-**	**8.602**
(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)*	35,910.714	-	-	-	-	-

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

Cost Elements	Prior Years			FY 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 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(†)	35,910.714	7	251.375	915.000	6	5.490	1,054.167	6	6.325	1,433.667	6	8.602	-	-	-	1,433.667	6	8.602
Subtotal: Recurring Cost	-	-	*251.375*	-	-	*5.490*	-	-	*6.325*	-	-	*8.602*	-	-	-	-	-	*8.602*
Subtotal: Flyaway Cost	**-**	**-**	***251.375***	**-**	**-**	***5.490***	**-**	**-**	***6.325***	**-**	**-**	***8.602***	**-**	**-**	**-**	**-**	**-**	***8.602***
Gross/Weapon System Cost	**35,910.714**	**7**	**251.375**	**-**	**-**	**5.490**	**-**	**-**	**6.325**	**-**	**-**	**8.602**	**-**	**-**	**-**	**-**	**-**	**8.602**

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Army	Quantity	-	-	-	-	-
	Total Obligation Authority	5.490	6.325	8.602	-	8.602
Total: Secondary Distribution	**Quantity**	**-**	**-**	**-**	**-**	**-**
	Total Obligation Authority	**5.490**	**6.325**	**8.602**	**-**	**8.602**

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2019 Army		Date: February 2018
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	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		2018	TBS / TBS	C / Various	Various	Mar 2018	Dec 2018	6	1,054.170	Y		
Hardware		2019	TBS / TBS	C / Various	Various	Mar 2019	Apr 2019	6	1,433.670	Y		

Remarks:
Procurement items are Commercial Off The Shelf (COTS) from various vendors TBD.

Exhibit P-5, Cost Analysis: PB 2019 Army		Date: February 2018
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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Procurement Quantity *(Units in Each)*	3	0	8	-	-	-
Gross/Weapon System Cost *($ in Millions)*	1,326.544	28.374	34.170	32.408	6.000	38.408
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	1,326.544	28.374	34.170	32.408	6.000	38.408
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**1,326.544**	**28.374**	**34.170**	**32.408**	**6.000**	**38.408**
(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)*	442,181.333	-	4,271.250	-	-	-

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

Cost Elements	Prior Years			FY 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 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(†)	164,591.000	8	1,316.728	2,770.375	8	22.163	3,465.375	8	27.723	3,247.875	8	25.983	-	-	-	3,247.875	8	25.983
Government Program Management Support	-	-	3.991	-	-	2.829	-	-	2.997	-	-	2.721	-	-	-	-	-	2.721
SETA Contract Support	-	-	1.873	-	-	2.349	-	-	2.396	-	-	2.654	-	-	-	-	-	2.654
ACPEP	-	-	3.952	-	-	1.033	-	-	1.054	-	-	1.050	-	-	-	-	-	1.050
Advantor camera upgrade	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6.000	-	-	6.000
Subtotal: Recurring Cost	-	-	*1,326.544*	-	-	*28.374*	-	-	*34.170*	-	-	*32.408*	-	-	*6.000*	-	-	*38.408*
Subtotal: Flyaway Cost	**-**	**-**	***1,326.544***	**-**	**-**	***28.374***	**-**	**-**	***34.170***	**-**	**-**	***32.408***	**-**	**-**	***6.000***	**-**	**-**	***38.408***
Gross/Weapon System Cost	**442,181.333**	**3**	**1,326.544**	**-**	**0**	**28.374**	**4,271.250**	**8**	**34.170**	**-**	**-**	**32.408**	**-**	**-**	**6.000**	**-**	**-**	**38.408**

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Army	Quantity	-	8	0	-	0
	Total Obligation Authority	28.374	34.170	32.408	6.000	38.408
Total: Secondary Distribution	**Quantity**	**0**	**8**	**-**	**-**	**-**
	Total Obligation Authority	**28.374**	**34.170**	**32.408**	**6.000**	**38.408**

Exhibit P-5, Cost Analysis: PB 2019 Army		Date: February 2018
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:**	

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2019 Army		Date: February 2018
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	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
AIE Hardware(†)		2017	Leidos Inc. / Reston, VA	C / IDIQ	Natick, MA / Ft. Belvoir, VA	Jul 2017	Mar 2018	8	2,770.375	Y		
AIE Hardware(†)		2018	Leidos Inc / Reston, VA	Option / IDDQ	Ft. Belvoir, VA	Jul 2018	Mar 2019	8	3,465.380	Y		
AIE Hardware(†)		2019	Leidos Inc / Reston, VA	Option / IDIQ	Ft. Belvoir, VA	Nov 2018	Jul 2019	8	3,247.880	Y		

(†) indicates the presence of a P-21

Exhibit P-21, Production Schedule: PB 2019 Army		Date: February 2018
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 (Units in Each)							Fiscal Year 2017												Fiscal Year 2018												
										Calendar Year 2017														Calendar Year 2018									
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2016	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	BALANCE
AIE Hardware																															
Prior Years Deliveries: 8																															
	1	2017	ARMY	8	0	8										A	-	-	-	-	-	-	-	1	-	2	1	1	1	2	0
	2	2018	ARMY	8	0	8																						A	-	-	8
	2	2019	ARMY	8	0	8																									8
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2019 Army		Date: February 2018
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 (Units in Each)							Fiscal Year 2019												Fiscal Year 2020											BALANCE
										Calendar Year 2019														Calendar Year 2020								
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2018	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
AIE Hardware																														
Prior Years Deliveries: 8																														
	1	2017	ARMY	8	8	0																								0
	2	2018	ARMY	8	0	8	-	-	-	-	-	1	2	2	2	1														0
	2	2019	ARMY	8	0	8		A -	-	-	-	-	-	-	-	1	1	2	1	2	1									0
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2019 Army		Date: February 2018
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)							
					Initial				Reorder			
		MSR For 2019	1-8-5 For 2019	MAX For 2019	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	20	0	8	0	8	0	0	0	0
2	Leidos Inc - Reston, VA	1	1	20	0	8	0	8	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).

Exhibit P-40, Budget Line Item Justification: PB 2019 Army	Date: February 2018
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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	546.976	2.168	13.239	6.633	2.080	8.713	14.340	14.428	14.522	14.813	-	629.199
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	546.976	2.168	13.239	6.633	2.080	8.713	14.340	14.428	14.522	14.813	-	629.199
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**546.976**	**2.168**	**13.239**	**6.633**	**2.080**	**8.713**	**14.340**	**14.428**	**14.522**	**14.813**	**-**	**629.199**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost *($ in Thousands)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Thousands)*	-	-	-	-	-	-	-	-	-	-	-	-

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. Equipment unit cost must meet the currently approved Expense-Investment threshold of $250,000.00. 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). Equipment is becoming more difficult to repair after years of continual heavy use and repair parts are limited or not available due to discontinuation by the manufacture causing longer and more frequent down times. 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. If resources do not keep pace with IMCOM's aging fleet, safety risks rise, equipment readiness suffers, and mission support will be compromised as equipment continues to fail.

Funds are required for CID to purchase life cycle replacement for Scanning Electron Microscope -w/Energy Dispersive X-ray Spectrometer w/Wavelength Dispersive Spectrometer (SEM-EDS/WDS). The requirement is part of the US Army Criminal Investigation Laboratory continuing effort to modernize and advance its forensic capability. This instrument allows for the investigation of elemental and crystalline structure compounds. By using x-rays, the instrument is able to develop patterns of the x-ray bending properties of compounds, better known as "diffraction patterns". This instrument combines the areas of high magnification microscopy with the ability to conduct analysis of detectable energies in the form of x-rays.

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023
Army	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	2.168	13.239	6.633	2.080	8.713	14.340	14.428	14.522	14.813
Total: Secondary Distribution	**Quantity**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
	Total Obligation Authority	**2.168**	**13.239**	**6.633**	**2.080**	**8.713**	**14.340**	**14.428**	**14.522**	**14.813**

Exhibit P-40, Budget Line Item Justification: PB 2019 Army		Date: February 2018
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		

Justification:
FY 2019 funding in the amount of $6.633 million (Base) procures the following:

In FY 2019, Installation Management Command (IMCOM) will use $6.104 million to procure 23 essential equipment items. This includes Bulldozers (2), Road Graders (3), Front End Loaders (8), Tractors (2), Cranes (2), Street Sweepers (3), Excavators (1), Water Tanker (1), and Fork Lift (1). These items will be used to meet the immediate/daily needs of 10 Installations. Funding for FY18 acknowledges need to reconstitute aging fleet.

In FY 2019, Criminal Investigative Command (CIDC) will use The FY19 (Base) procurement funding in the amount of $.529 million procures the following:
Scanning Electron Microscope -w/Energy Dispersive X-ray Spectrometer/ Wavelength Dispersive Spectrometer (SEM-EDS/WDS) and the X-Ray Diffractometer (XRD): Both instruments are the most advanced pieces of forensic equipment in the laboratory as well as being one of the most sensitive instruments for elemental analysis of materials. The majority of examinations are geared to the analysis of crystalline materials. It serves multiple functions in scientific investigations of materials associated with sexual assaults, assaults, homicides, suicides, arsons, burglaries, shooting investigations, IED investigations, etc.
In conjunction with the elemental analysis using SEM/EDS/WDS, the XRD is able to conclusively identify the manner in which elements in a compounds are associated (bonded). An XRD analyzer obtains interference patterns reflecting lattice structures by varying the angle of incidence of the X-Ray beam. Thus, the precision, speed of rotation, and beam size of the x-rays become important parameters by which to judge materials.
The impact to the laboratory of not completing these life cycle replacement would be to significantly limit the laboratory's ability to conduct investigations requiring the analysis of explosive analysis, soil analysis, and most significantly the identification of molecular structure of crystalline materials. The requirement must be obtained in order to meet electrical, mechanical and other installation requirements. If not funded, the completion, occupation, relocation, and ability to complete mission functions will be adversely effected. If the current microscope is not replaced, the aging instrument could fail or result in evidence pertaining to homicides and sexual assault cases not being analyzed in a timely manner due to outdated software and incompatibility with Army networks.

In FY 2019, CIDC will use $2.080 million (OCO) procurement funding:

OPA funding will allow the Defense Forensic Science Center (DFSC) to procure 8 2-sided expandable shelters to replace the first generation shelters that are not sanctioned by the Joint Committee on Tactical Shelters (JOCOTAS). The ESPs are part of modular, scalable, and customizable force packages for forward forensic exploitation that will be used to establish labs in support of global Geographic Combatant Commands (GCCs) with no organic exploitation capability.

Exhibit P-40, Budget Line Item Justification: PB 2019 Army	Date: February 2018
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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	1,130.629	80.438	60.192	49.797	19.200	68.997	81.874	76.875	66.379	55.485	-	1,620.869
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	1,130.629	80.438	60.192	49.797	19.200	68.997	81.874	76.875	66.379	55.485	-	1,620.869
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**1,130.629**	**80.438**	**60.192**	**49.797**	**19.200**	**68.997**	**81.874**	**76.875**	**66.379**	**55.485**	**-**	**1,620.869**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost *($ in Thousands)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Thousands)*	243.986	26.724	42.092	34.994	164.103	44.803	101.833	79.995	713.753	242.293	-	127.617

Description:

This budget line funds Modifications of In-Service Equipment programs. It is used to develop 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 are categorized under Landing Craft, Towing and Terminal Operations, Ship-to-Shore Enablers and Watercraft Operations Support. Landing Craft consist of 8 Logistic Support Vessels (LSV), 34 Landing Craft Utility 2000 (LCU-2000), 30 Landing Craft Mechanized 8 (LCM-8) MOD 1, and 6 LCM-8 MOD 2 (Watercraft Operations Support). Towing and Terminal Operations consist of 6 Large Tug 800 (LT-800), 16 Small Tug 900 (ST-900), and 4 Barge Derrick Crane 115-ton (BD-115). Ship-to-Shore Enablers consist of 3 Modular Causeway Systems (MCS) [each MCS includes 2 Roll-On/Roll-Off Discharge Facilities (RRDF), 5 Modular Warping Tugs (MWT), 1 Causeway Ferry (CF), 1 Floating Causeway (FC)]. Landing Craft discharge combat equipment or troops to austere beaches, undeveloped coastlines and operate in a non-permissive environment. Towing and Terminal Operations and Ship-to-Shore Enablers support ocean and port/harbor towing/salvage operations. Both are critical in denied/degraded ports, Joint Logistics Over-the-Shore (JLOTS) operations, and operations throughout the littorals. 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. Vessel lethality/Escalation of Force measures have increasingly become an area of vital concern to the Combatant Commanders (CCDR) given the requirement to preserve "freedom of the seas" access in all areas of the world, particularly the littorals, to support maneuver operations in all Areas of Responsibility.

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); and Hydraulic Excavators (HYEX). These improvements will decrease rising sustainment costs and bridge the gap until new system procurement in future years.

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. 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.

Exhibit P-40, Budget Line Item Justification: PB 2019 Army		Date: February 2018
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		

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 short 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.

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.

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 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 dismounted 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 548. In addition, the Explosive Ordnance Disposal (EOD) Modification of In-Service Equipment will be used to modify the Dismounted Reconnaissance Sets, Kits and Outfits (DR SKO).

The AN/PSS-14 (HSTAMIDS) upgrade will correct safety and reliability/maintainability shortfalls of the system identified by the combat developer and depot operations responsible for the reset and overhaul of this system. The modifications will include new electronic boards, hand controller hardware, and updated software to address the safety performance of the system. These upgrades will require training/fielding of the system to address changes in the system operation from current software/hardware configuration.

The upgrade to the Husky Mounted Detection System (HMDS) Ground Penetrating Radar (GPR) panel (antenna) skins will decrease cuts and abrasions resulting from ground contact and improve the ability of the panels to shed water during heavy rain, which will enhance detection performance and operational availability during inclement weather.

The M41 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 M41 PATS 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 that occur naturally in the surrounding air. The M41 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 that: (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 manufactural due to technological obsolescence of critical calibration components. The modernized M41 PATS will have modern technologies and updated components, such as circuit boards, so they are producible and manufactural 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 a mobile, rapidly erected, modular military bridging system used by the MRBC. The 40 Meter DSB can span a 40-meter gap or two 20-meter gaps. The 46 Meter DSB can span a 46-meter gap or two 28-meter gaps (with the 46-meter retrofit upgrade). Both have a crossing capability of MLC 96 normal/120 under caution (Wheeled) and MLC 80 (Tracked). The DSB has a road width of

Exhibit P-40, Budget Line Item Justification: PB 2019 Army		Date: February 2018
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		

4.3 meters and an emplacement time of 90 minutes or less, with little or no site preparation. The DSB will support the Joint Force Commander's ability to employ and sustain forces throughout the global battle space.

The Rapidly Emplaced Bridge System (REBS) is a self-deployable/retrievable bridge that provides the SBCT, and potentially IBCTs, 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 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, domestics emergency responses, and providing military support to civil authorities.

Exhibit P-40, Budget Line Item Justification: PB 2019 Army	Date: February 2018
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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 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 / - (-)				- / 860.820	- / 46.363	- / 26.018	- / 25.201	- / -	- / 25.201
P-3a	MA4502 / - (-)				- / 220.588	- / 17.112	- / 26.490	- / 15.886	- / -	- / 15.886
P-40a	MA4504 / TACTICAL BRIDGING MODIFICATIONS (Equipment Upgrade)				- / 49.221	- / 10.824	- / 5.684	- / 2.912	- / -	- / 2.912
P-3a	R01121 / Explosive Ordnance Disposal (EOD) Equipment R01121 (Equipment Upgrade)				- / -	- / 6.139	- / 2.000	- / 5.798	- / 19.200	- / 24.998
P-40	**Total Gross/Weapon System Cost**				**- / 1,130.629**	**- / 80.438**	**- / 60.192**	**- / 49.797**	**- / 19.200**	**- / 68.997**

Exhibits Schedule					FY 2020	FY 2021	FY 2022	FY 2023	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 / - (-)				- / 28.122	- / 26.466	- / 22.310	- / 30.770	- / -	- / 1,066.070
P-3a	MA4502 / - (-)				- / 4.667	- / 4.812	- / 4.031	- / 4.204	- / -	- / 297.790
P-40a	MA4504 / TACTICAL BRIDGING MODIFICATIONS (Equipment Upgrade)				- / 35.685	- / 32.858	- / 33.122	- / 6.551	- / -	- / 176.857
P-3a	R01121 / Explosive Ordnance Disposal (EOD) Equipment R01121 (Equipment Upgrade)				- / 13.400	- / 12.739	- / 6.916	- / 13.960	- / -	- / 80.152
P-40	**Total Gross/Weapon System Cost**				**- / 81.874**	**- / 76.875**	**- / 66.379**	**- / 55.485**	**- / -**	**- / 1,620.869**

*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 2019 procurement dollars in the amount of $49.797 million Base and $19.200 million OCO support the following efforts:

MA4501:
Modification Item #1 MHE Technical Insertion (PEO CS & CSS) - FY 2019 Base procurement dollars for Material Handling Equipment (MHE) in the amount of $0.141 million funds the procurement and fielding of RTCH Special Tools Kits and provides upgrades modifications, like new control units, to the ATLAS, RTCH and other MHE systems and supports Program Management Support costs.

Modification Item #2 Construction Equipment Tech Insertion (PEO CS & CSS) - FY 2019 Base procurement dollars for Construction Equipment (CE) in the amount of $2.856 million procures 12 Scraper Armor Kits to support soldier survivability, vehicle reliability and deployability, vehicle operations and visibility in hostile construction areas and Program Management support costs.

Modification Item #3 Army Watercraft Systems (PEO CS & CSS) - FY 2019 Base procurement dollars in the amount of $8.268 million primarily supports the correction of safety and regulatory deficiencies in the Army Watercraft Legacy Fleet which has not transitioned to sustainment, is approaching the end of Economic Useful Life (EUL) and requires Engineering change Proposals (ECPs) to maintain capability. Also supports Program Management/Matrix Support, and upgrades/modifications to Army Watercraft Systems which are completed as required to resolve any safety and/or sustainability issues, Force Protection - lethal and non-lethal Escalation of Force (EoF) issues, and technical insertions. Additionally, other watercraft modifications are supported such as complex Command, Control, Communications, Computers, Intelligence, Surveillance, and Reconnaissance (C4ISR) modernization and technology upgrades in the replacement of obsolete systems. These modifications will gain critically required operational improvements or maintain compliance with new and/or changing federal statutory and regulatory mandates in the areas of safety of life at sea (SOLAS) and environmental compliance. Program Management/

Exhibit P-40, Budget Line Item Justification: PB 2019 Army		Date: February 2018
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		

Matrix Support includes Program Management and System5.282- Engineering oversight required to manage the program and provide contractor oversight. Salaries, Benefits, Travel, Personnel Training and other government costs are included for retaining a professional acquisition workforce.

Modification Item #4 & #5 M139 Volcano Mine Dispensing System (PEO Ammunition) - FY 2019 Base procurement dollars in the amount of $8+5.282+.654 million supports modification of 33 volcano systems in addition to initial engineering for modification of MICLIC systems. M139 Volcano Mine Dispensing System and MICLIC System are new start programs in FY 2019.

Modification Item #6 CBRN Soldier P.133-3.608-protection M41 PATS (PEO Joint Program Office Biological Defense) - FY2019 Base procurement dollars in the amount of $5.282 million supports the procurement of 445 M41 Protection Assessment Test Systems (PATS) to include fielding and training of delivered systems to sustain the Army's chemical and biological protection mask fit assessment capability and mitigate obsolescence.

Modification Item #7 Force Provider (PEO CS & CSS) - There is no FY 2019 funding for this modification item.+.133+3.608+

Modification Item #8 Food Sanitation Center (PEO CS & CSS) - There is no FY 2019 funding for this modification item.

MA4502:
Modification Item #1 Petroleum and Water Systems (PEO CS & CSS) - FY 2019 Base procurement dollars in the amount of $0.133 million supports the following: Petroleum and Water Systems (PAWS) will perform updates and provide replacements for obsolete instruments on t12.145he Petroleum Quality Analysis System Enhanced (PQAS-E) systems. This will ensure all systems in the field are the same configuration and have the most up to date instrumentation.

Modification Item #2 Army Watercraft Systems (PEO CS & CSS) - FY 2019 Base procurement dollars in the amount of $3.608 million primarily supports the correction of safety and regulatory deficiencies in the Army Watercraft Legacy Fleet which has not transitioned to sustainment, is approaching the end of Economic Useful Life (EUL) and requires Engineering change Proposals (ECPs) to maintain capability. Also supports Program Management/Matrix Support, and upgrades/modifications to Army Watercraft Systems which are completed as required to resolve any safety and/or sustainability issues, Force Protection - lethal and non-lethal Escalation of Force (EoF) issues, and technical insertions. Additionally, other watercraft modifications are supported su4ch as complex Command, Control, Communications, Computers, Intelligence, Surveillance, and Reconnaissance (C4ISR) modernization and technology upgrades in the replacement of obsolete systems. These modifications will gain critically required operational improvements or maintain compliance with new and/or changing federal statutory and regulatory mandates in the areas of safety of life at sea (SOLAS) and environmental compliance. Program Management/ Matrix Support includes Program Management and System Engineering oversight required to manage the program and provide contractor oversight. Salaries, Benefits, Travel, Personnel Training and other government costs are included for retaining a professional acquisition workforce.

Modification Items #3 AN/PSS-14C (PEO Ammunition) and HMDS (PEO IEWS) - FY 2019 Base procurement dollars in the amount of $12.145 million procures modifications to Countermine Clearing Equipment for AN/PSS-14C (HSTAMIDS), which will extend the service life of this system, currently used in both the Continental United States (CONUS) and Outside the Continental Unites States (OCONUS).

MA4504:
Modification Item #1 Bridging (PEO CS & CSS) - FY 2019 Base procurement dollars in the amount of $2.912 million supports the following Bridging upgrades: 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%. The Rapidly Emplaced Bridge System (REBS) technical manuals to support modifications.

R01121:
Modification Items #1 and 2 Explosive Ordnance Disposal Equipment (PEO Ammunition and PEO Joint Program Office Biological Defense) - FY 2019 Base procurement dollars in the amount of $5.798 million procures modifications to 45 Explosive Ordnance Disposal (EOD) Response Tool Kits and 1 Dismounted Reconnaissance Sets, Kits and Outfits (DR SKO). FY 2019 OCO procurement dollars in the amount of $19.200 million procures modifications to 109 Explosive Ordnance Disposal (EOD) Response Tool Kits and 8 Dismounted Reconnaissance Sets, Kits and Outfits (DR SKO). This modernized equipment will increase operational capabilities of EOD units, as well as enhance the safety of EOD soldiers.

Exhibit P-40, Budget Line Item Justification: PB 2019 Army		Date: February 2018
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		

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.

Exhibit P-3a, Individual Modification: PB 2019 Army		Date: February 2018
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 / -
ID Code (A=Service Ready, B=Not Service Ready) :		MDAP/MAIS Code:

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	860.820	46.363	26.018	25.201	-	25.201	28.122	26.466	22.310	30.770	-	1,066.070
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	860.820	46.363	26.018	25.201	-	25.201	28.122	26.466	22.310	30.770	-	1,066.070
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**860.820**	**46.363**	**26.018**	**25.201**	**-**	**25.201**	**28.122**	**26.466**	**22.310**	**30.770**	**-**	**1,066.070**
(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)*	683.190	23.511	57.690	51.222	-	51.222	45.358	31.658	587.105	580.566	-	186.311

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 2019 Base procurement dollars for Material Handling Equipment (MHE) in the amount of $0.141 million provides upgrades modifications, like new control units, to the ATLAS, RTCH and other MHE systems and supports Program Management 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 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) - FY 2019 Base procurement dollars for Construction Equipment (CE) in the amount of $2.856 million procures 12 Scraper Armor Kits to support soldier survivability, vehicle reliability and deployability, vehicle operations, visibility in hostile construction areas and supports Program Management Support costs. In addition to the base description above, 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); Hydraulic Excavators (HYEX); and Blade Leveling. These improvements will decrease rising sustainment costs and bridge the gap until new system procurement in future years.

Modification Item #3 Army Watercraft Systems (PEO CS & CSS) - FY 2019 Base procurement dollars in the amount of $8.268 million primarily supports the correction of safety and regulatory deficiencies in the Army Watercraft Legacy Fleet which has not transitioned to sustainment, is approaching the end of Economic Useful Life (EUL) and requires Engineering change Proposals (ECPs) to maintain capability. Also supports Program Management/Matrix Support, and upgrades/modifications to Army Watercraft Systems which are completed as required to resolve any safety and/or sustainability issues, Force Protection - lethal and non-lethal Escalation of Force (EoF) issues, and technical insertions. Additionally, other watercraft modifications are supported such as complex Command, Control, Communications, Computers, Intelligence, Surveillance, and Reconnaissance (C4ISR) modernization and technology upgrades in the replacement of obsolete systems. These modifications will gain critically required operational improvements or maintain compliance with new and/or changing federal statutory and regulatory mandates in the areas of safety of life at sea (SOLAS) and environmental compliance. Program Management/ Matrix Support includes Program Management and System Engineering oversight required to manage the program and provide contractor oversight. Salaries, Benefits, Travel, Personnel Training and other government costs are included for retaining a professional acquisition workforce.

Exhibit P-3a, Individual Modification: PB 2019 Army		Date: February 2018
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 / -
ID Code (A=Service Ready, B=Not Service Ready) :	**MDAP/MAIS Code:**	

Modification Item #4 & #5 M139 Volcano Mine Dispensing System (PEO Ammunition) - FY 2019 Base procurement dollars in the amount of $8.654 million supports modification of 33 volcano systems in addition to initial engineering for modification of MICLIC systems. M139 Volcano Mine Dispensing System and MICLIC System are new start programs in FY 2019. 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.

Modification Item #6 CBRN Soldier Protection M41 PATS (PEO Joint Program Office Biological Defense) - FY2019 Base procurement dollars in the amount of $5.282 million supports the procurement of 445 M41 Protection Assessment Test Systems (PATS) to include fielding and training of delivered systems to sustain the Army's chemical and biological protection mask fit assessment capability and mitigate obsolescence.

Modification Item #7 Force Provider (PEO CS & CSS) - There is no FY 2019 funding for this modification item.

Modification Item #8 Food Sanitation Center (PEO CS & CSS) - There is no FY 2019 funding for this modification item.

Exhibit P-3a, Individual Modification: PB 2019 Army		Date: February 2018
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 / -
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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	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 8: Material Handling Equipment Technical Insertion												
A Kits												
Recurring												
Other	- / 0.541	- / -	- / 0.143	- / 0.141	- / -	- / 0.141	- / 0.243	- / 0.250	- / 0.261	- / 0.266	- / 0.000	- / 1.845
Subtotal: Recurring	*- / 0.541*	*- / -*	*- / 0.143*	*- / 0.141*	*- / -*	*- / 0.141*	*- / 0.243*	*- / 0.250*	*- / 0.261*	*- / 0.266*	*- / -*	*- / 1.845*
Subtotal: Material Handling Equipment Technical Insertion	*- / 0.541*	*- / -*	*- / 0.143*	*- / 0.141*	*- / -*	*- / 0.141*	*- / 0.243*	*- / 0.250*	*- / 0.261*	*- / 0.266*	*- / -*	*- / 1.845*
Modification Item 2 of 8: Construction Equipment Technical Insertion												
A Kits												
Recurring												
Other	- / 28.916	- / 1.031	- / 5.172	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 35.119
Subtotal: Recurring	*- / 28.916*	*- / 1.031*	*- / 5.172*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 35.119*
B Kits												
Recurring												
Scraper Armor Kits	- / -	- / -	- / -	12 / 2.856	- / -	12 / 2.856	22 / 5.693	- / -	- / -	- / -	- / 0.000	34 / 8.549
Blade Levelling Kits	- / -	95 / 8.274	- / -	- / -	- / -	- / -	- / -	17 / 1.481	39 / 3.396	- / -	- / 0.000	151 / 13.151
Other	- / -	- / 7.160	- / -	- / -	- / -	- / -	- / 0.252	- / 2.010	- / 0.198	- / 3.646	- / 0.000	- / 13.266
Subtotal: Recurring	*- / -*	*95 / 15.434*	*- / -*	*12 / 2.856*	*- / -*	*12 / 2.856*	*22 / 5.945*	*17 / 3.491*	*39 / 3.594*	*- / 3.646*	*- / -*	*185 / 34.966*
Subtotal: Construction Equipment Technical Insertion	*- / 28.916*	*95 / 16.465*	*- / 5.172*	*12 / 2.856*	*- / -*	*12 / 2.856*	*22 / 5.945*	*17 / 3.491*	*39 / 3.594*	*- / 3.646*	*- / -*	*185 / 70.085*
Modification Item 3 of 8: Army Watercraft Systems												
A Kits												
Recurring												
Safety/Environmental MWO's/PQDR's/ECP's	- / 8.993	- / 3.964	- / 2.053	- / 3.211	- / -	- / 3.211	- / 4.200	- / 4.000	- / 3.450	- / 3.400	- / 0.000	- / 33.271
Program Management	- / 2.350	- / 1.169	- / 1.295	- / 0.739	- / -	- / 0.739	- / 0.839	- / 0.986	- / 0.602	- / 0.400	- / 0.000	- / 8.380
Matrix Support	- / 7.470	- / 1.143	- / 3.670	- / 2.218	- / -	- / 2.218	- / 1.800	- / 1.900	- / 1.600	- / 1.800	- / 0.000	- / 21.601
C4ISR	- / 23.700	- / -	- / -	- / 2.100	- / -	- / 2.100	- / 2.130	- / 2.284	- / 2.400	- / 2.611	- / 0.000	- / 35.225
Training Equipment	- / 608.689	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 608.689
Subtotal: Recurring	*- / 651.202*	*- / 6.276*	*- / 7.018*	*- / 8.268*	*- / -*	*- / 8.268*	*- / 8.969*	*- / 9.170*	*- / 8.052*	*- / 8.211*	*- / -*	*- / 707.166*
Subtotal: Army Watercraft Systems	*- / 651.202*	*- / 6.276*	*- / 7.018*	*- / 8.268*	*- / -*	*- / 8.268*	*- / 8.969*	*- / 9.170*	*- / 8.052*	*- / 8.211*	*- / -*	*- / 707.166*

Exhibit P-3a, Individual Modification: PB 2019 Army		Date: February 2018
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 / -
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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	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)*
Modification Item 4 of 8: M139 Volcano Mine Dispersing System												
A Kits												
Recurring												
M139 Volcano Mine Dispersing System	- / -	- / -	- / -	33 / 8.154	- / -	33 / 8.154	41 / 6.619	42 / 4.929	32 / 10.403	34 / 9.129	- / 0.000	182 / 39.234
Subtotal: Recurring	*- / -*	*- / -*	*- / -*	*33 / 8.154*	*- / -*	*33 / 8.154*	*41 / 6.619*	*42 / 4.929*	*32 / 10.403*	*34 / 9.129*	*- / -*	*182 / 39.234*
Subtotal: M139 Volcano Mine Dispersing System	*- / -*	*- / -*	*- / -*	*33 / 8.154*	*- / -*	*33 / 8.154*	*41 / 6.619*	*42 / 4.929*	*32 / 10.403*	*34 / 9.129*	*- / -*	*182 / 39.234*
Modification Item 5 of 8: Mine Clearing Line Charge (MICLIC)												
A Kits												
Non-Recurring												
MICLIC (Mine Clearing Charge)	- / -	- / -	- / -	- / 0.500	- / -	- / 0.500	- / -	- / -	- / -	- / -	- / 0.000	- / 0.500
Subtotal: Non-Recurring	*- / -*	*- / -*	*- / -*	*- / 0.500*	*- / -*	*- / 0.500*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 0.500*
Subtotal: Mine Clearing Line Charge (MICLIC)	*- / -*	*- / -*	*- / -*	*- / 0.500*	*- / -*	*- / 0.500*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 0.500*
Modification Item 6 of 8: CBRN Soldier Protection M41 PATS												
A Kits												
Recurring												
M41 8020M Systems	- / -	420 / 4.113	427 / 4.318	445 / 4.496	- / -	445 / 4.496	554 / 6.202	779 / 8.626	- / -	- / -	- / 0.000	2,625 / 27.755
Tech Data	- / -	- / 0.337	- / 0.130	- / 0.130	- / -	- / 0.130	- / -	- / -	- / -	- / -	- / 0.000	- / 0.597
Program Managment	- / -	- / 0.248	- / 0.335	- / 0.656	- / -	- / 0.656	- / 0.144	- / -	- / -	- / -	- / 0.000	- / 1.383
Subtotal: Recurring	*- / -*	*420 / 4.698*	*427 / 4.783*	*445 / 5.282*	*- / -*	*445 / 5.282*	*554 / 6.346*	*779 / 8.626*	*- / -*	*- / -*	*- / -*	*2,625 / 29.735*
Subtotal: CBRN Soldier Protection M41 PATS	*- / -*	*420 / 4.698*	*427 / 4.783*	*445 / 5.282*	*- / -*	*445 / 5.282*	*554 / 6.346*	*779 / 8.626*	*- / -*	*- / -*	*- / -*	*2,625 / 29.735*
Modification Item 7 of 8: Force Provider												
A Kits												
Recurring												
Other	- / 164.460	- / 16.444	- / 8.902	- / -	- / -	- / -	- / -	- / -	- / -	- / 9.518	- / 0.000	- / 199.324
Subtotal: Recurring	*- / 164.460*	*- / 16.444*	*- / 8.902*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 9.518*	*- / -*	*- / 199.324*
Subtotal: Force Provider	*- / 164.460*	*- / 16.444*	*- / 8.902*	*- / 0.000*	*- / -*	*- / 0.000*	*- / -*	*- / -*	*- / -*	*- / 9.518*	*- / -*	*- / 199.324*
Modification Item 8 of 8: Food Sanitation Center												
A Kits												
Recurring												

Exhibit P-3a, Individual Modification: PB 2019 Army		Date: February 2018
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 / -
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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	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)*
Other	- / 12.589	- / 2.480	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 15.069
Subtotal: Recurring	*- / 12.589*	*- / 2.480*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 15.069*
Subtotal: Food Sanitation Center	*- / 12.589*	*- / 2.480*	*- / -*	*- / 0.000*	*- / -*	*- / 0.000*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 15.069*
Subtotal: Procurement, All Modification Items	*- / 857.708*	*515 / 46.363*	*427 / 26.018*	*490 / 25.201*	*- / -*	*490 / 25.201*	*617 / 28.122*	*838 / 26.466*	*71 / 22.310*	*34 / 30.770*	*- / -*	*2,992 / 1,062.958*
Installation												
Modification Item 6 of 8: CBRN Soldier Protection M41 PATS	- / -	420 / 0.000	427 / 0.000	445 / 0.000	- / -	445 / 0.000	554 / 0.000	779 / 0.000	- / -	- / -	- / -	2,625 / 0.000
Modification Item 7 of 8: Force Provider	- / 1.880	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 1.880
Modification Item 8 of 8: Food Sanitation Center	- / 1.232	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 1.232
Subtotal: Installation	*0 / 3.112*	*420 / 0.000*	*427 / 0.000*	*445 / 0.000*	*0 / 0.000*	*445 / 0.000*	*554 / 0.000*	*779 / 0.000*	*- / -*	*- / -*	*- / -*	*2,625 / 3.112*
Total												
Total Cost (Procurement + Support + Installation)	**860.820**	**46.363**	**26.018**	**25.201**	**-**	**25.201**	**28.122**	**26.466**	**22.310**	**30.770**	**-**	**1,066.070**

Exhibit P-3a, Individual Modification: PB 2019 Army		Date: February 2018
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 / -
ID Code (A=Service Ready, B=Not Service Ready) :	**MDAP/MAIS Code:**	

Modification Item 1 of 8: Material Handling Equipment Technical Insertion

Manufacturer Information

Manufacturer Name: Various	Manufacturer Location: Various
Administrative Leadtime *(in Months)*:	Production Leadtime *(in Months)*:

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates							
Delivery Dates							

Installation Information

Method of Implementation: Various

Installation Cost	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	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 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	- / -	- / -	- / -	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2023	- / -	- / -	- / -	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
Total	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	0 / 0.000

Installation Schedule

	PYS	FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				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

Exhibit P-3a, Individual Modification: PB 2019 Army		Date: February 2018
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 / -
ID Code (A=Service Ready, B=Not Service Ready) :		**MDAP/MAIS Code:**
Modification Item 2 of 8: Construction Equipment Technical Insertion		

Manufacturer Information

Manufacturer Name: Various	Manufacturer Location: Various
Administrative Leadtime *(in Months)*: 4	Production Leadtime *(in Months)*: 2

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates	Dec 2016	Dec 2017	Dec 2018	Dec 2019	Dec 2020	Dec 2021	Dec 2022
Delivery Dates	Mar 2017	Mar 2018	Mar 2019	Mar 2020	Mar 2021	Mar 2022	Mar 2023

Installation Information

Method of Implementation (Organic): Various	**Installation Quantity:** 0

Exhibit P-3a, Individual Modification: PB 2019 Army		Date: February 2018
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 / -
ID Code (A=Service Ready, B=Not Service Ready) :	**MDAP/MAIS Code:**	
Modification Item 3 of 8: Army Watercraft Systems		

Manufacturer Information

Manufacturer Name: Various	Manufacturer Location: Various
Administrative Leadtime *(in Months)*:	Production Leadtime *(in Months)*:

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates							
Delivery Dates							

Installation Information

Method of Implementation: -

Installation Cost	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	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	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	- / -	- / -	- / -	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	- / -	- / -	- / -	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2023	- / -	- / -	- / -	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
Total	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	0 / 0.000

Installation Schedule

	PYS	FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				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

Exhibit P-3a, Individual Modification: PB 2019 Army		Date: February 2018
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 / -
ID Code (A=Service Ready, B=Not Service Ready) :	**MDAP/MAIS Code:**	

Modification Item 4 of 8: 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 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates							
Delivery Dates							

Installation Information

Method of Implementation: To Be Selected

Installation Cost	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	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	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	- / -	- / -	- / -	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	- / -	- / -	- / -	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2023	- / -	- / -	- / -	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
Total	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	0 / 0.000

Installation Schedule

	PYS	FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				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

Exhibit P-3a, Individual Modification: PB 2019 Army		Date: February 2018
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 / -
ID Code (A=Service Ready, B=Not Service Ready) :	**MDAP/MAIS Code:**	

Modification Item 5 of 8: 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 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates							
Delivery Dates							

Installation Information

Method of Implementation: To Be Selected

Installation Cost	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	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 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	0 / 0.000

Installation Schedule

	PYS	FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				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

Exhibit P-3a, Individual Modification: PB 2019 Army		Date: February 2018
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 / -
ID Code (A=Service Ready, B=Not Service Ready) :	**MDAP/MAIS Code:**	

Modification Item 6 of 8: CBRN Soldier Protection M41 PATS

Manufacturer Information

Manufacturer Name: Manufacturer Name: TSI, Inc.	Manufacturer Location: Shoreview, MN
Administrative Leadtime *(in Months)*: 7	Production Leadtime *(in Months)*: 7

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates	May 2017	Jan 2018	Jan 2019				
Delivery Dates	Dec 2017	Jul 2018	Jul 2019				

Installation Information

Method of Implementation: Contract

Installation Cost	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	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	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	- / -	420 / 0.000	- / -	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	420 / 0.000
FY 2018	- / -	- / -	427 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	427 / 0.000
FY 2019	- / -	- / -	- / -	445 / 0.000	- / -	445 / 0.000	- / -	- / -	- / -	- / -	- / -	445 / 0.000
FY 2020	- / -	- / -	- / -	0 / 0.000	- / -	0 / 0.000	554 / 0.000	- / -	- / -	- / -	- / -	554 / 0.000
FY 2021	- / -	- / -	- / -	0 / 0.000	- / -	0 / 0.000	- / -	779 / 0.000	- / -	- / -	- / -	779 / 0.000
FY 2022	- / -	- / -	- / -	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2023	- / -	- / -	- / -	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
Total	0 / 0.000	420 / 0.000	427 / 0.000	445 / 0.000	0 / 0.000	445 / 0.000	554 / 0.000	779 / 0.000	- / -	- / -	- / -	2,625 / 0.000

Installation Schedule

	PYS	FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				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	-	-	-	-	-	420	-	-	427	-	-	-	445	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,292
Out	-	-	-	-	-	-	-	-	150	150	150	150	150	150	150	122	120	-	-	-	-	-	-	-	-	-	-	-	-	-	1,292

Exhibit P-3a, Individual Modification: PB 2019 Army		Date: February 2018
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 / -
ID Code (A=Service Ready, B=Not Service Ready) :	**MDAP/MAIS Code:**	
Modification Item 7 of 8: Force Provider		

Manufacturer Information

Manufacturer Name: Letterkenny Army Depot	Manufacturer Location: Chambersburg, PA
Administrative Leadtime *(in Months)*: 2	Production Leadtime *(in Months)*:

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates	Dec 2015	Dec 2016					
Delivery Dates	Aug 2016	Aug 2017					

Installation Information

Method of Implementation: MIPR

Installation Cost	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	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	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 1.880
FY 2017	- / -	- / -	- / -	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	- / -	- / -	- / -	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2023	- / -	- / -	- / -	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
Total	0 / 1.880	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	0 / 1.880

Installation Schedule

	PYS	FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				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	554	122	-	-	-	16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8	-	-	-	-	700
Out	554	-	-	-	31	31	30	30	4	4	4	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8	700

Exhibit P-3a, Individual Modification: PB 2019 Army		Date: February 2018
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 / -
ID Code (A=Service Ready, B=Not Service Ready) :	**MDAP/MAIS Code:**	

Modification Item 8 of 8: 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 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates							
Delivery Dates							

Installation Information

Method of Implementation: C/FP

Installation Cost	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	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	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 1.232
FY 2017	- / -	- / -	- / -	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	- / -	- / -	- / -	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2023	- / -	- / -	- / -	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
Total	0 / 1.232	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	0 / 1.232

Installation Schedule

		FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023					
	PYS	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	TC	Tot
In	2,277	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2,277
Out	2,277	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2,277

Exhibit P-3a, Individual Modification: PB 2019 Army		Date: February 2018
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 / -
ID Code (A=Service Ready, B=Not Service Ready) :		MDAP/MAIS Code:

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	220.588	17.112	26.490	15.886	-	15.886	4.667	4.812	4.031	4.204	-	297.790
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	220.588	17.112	26.490	15.886	-	15.886	4.667	4.812	4.031	4.204	-	297.790
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**220.588**	**17.112**	**26.490**	**15.886**	**-**	**15.886**	**4.667**	**4.812**	**4.031**	**4.204**	**-**	**297.790**
(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)*	66.183	19.013	28.731	18.032	-	18.032	-	-	-	-	-	49.336

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) - FY 2019 procurement dollars in the amount of $0.133 million to correct safety deficiencies, increase mission capabilities and interoperability. To extend the useful life; improve, document and make changes to supportability, upgrade existing technology, increase efficiency, improve readiness, and the modernization of legacy communications equipment. To address obsolescence issues and to meet new and/or changing statutory and regulatory requirements by modifying existing equipment of systems in the petroleum and water systems portfolio.

Modification Item #2 Army Watercraft Systems (PEO CS & CSS) - FY 2019 Base procurement dollars in the amount of $3.608 million primarily supports the correction of safety and regulatory deficiencies in the Army Watercraft Legacy Fleet which has not transitioned to sustainment, is approaching the end of Economic Useful Life (EUL) and requires Engineering change Proposals (ECPs) to maintain capability. Also supports Program Management/Matrix Support, and upgrades/modifications to Army Watercraft Systems which are completed as required to resolve any safety and/or sustainability issues, Force Protection - lethal and non-lethal Escalation of Force (EoF) issues, and technical insertions. Additionally, other watercraft modifications are supported such as complex Command, Control, Communications, Computers, Intelligence, Surveillance, and Reconnaissance (C4ISR) modernization and technology upgrades in the replacement of obsolete systems. These modifications will gain critically required operational improvements or maintain compliance with new and/or changing federal statutory and regulatory mandates in the areas of safety of life at sea (SOLAS) and environmental compliance. Program Management/ Matrix Support includes Program Management and System Engineering oversight required to manage the program and provide contractor oversight. Salaries, Benefits, Travel, Personnel Training and other government costs are included for retaining a professional acquisition workforce.

Modification Items #3 AN/PSS-14 (PEO Ammunition) and HMDS (PEO IEWS) - FY 2019 Base procurement dollars in the amount of $12.145 million procures modifications to Countermine Clearing Equipment for AN/PSS-14C (HSTAMIDS), which will extend the service life of this system, currently used in both the Continental United States (CONUS) and Outside the Continental Unites States (OCONUS).

Exhibit P-3a, Individual Modification: PB 2019 Army		Date: February 2018
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 / -
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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	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 4: Petroleum/Water Systems PEO-CS-CSS												
A Kits												
Recurring												
Other	- / 2.790	- / 0.205	- / 0.151	- / 0.133	- / -	- / 0.133	- / 0.228	- / 0.233	- / 0.238	- / 0.249	- / 0.000	- / 4.227
Subtotal: Recurring	*- / 2.790*	*- / 0.205*	*- / 0.151*	*- / 0.133*	*- / -*	*- / 0.133*	*- / 0.228*	*- / 0.233*	*- / 0.238*	*- / 0.249*	*- / -*	*- / 4.227*
Subtotal: Petroleum/Water Systems PEO-CS-CSS	*- / 2.790*	*- / 0.205*	*- / 0.151*	*- / 0.133*	*- / -*	*- / 0.133*	*- / 0.228*	*- / 0.233*	*- / 0.238*	*- / 0.249*	*- / -*	*- / 4.227*
Modification Item 2 of 4: Army Watercraft Systems												
Subtotal: Army Watercraft Systems	*- / -*	*- / -*	*- / -*	*- / 0.000*	*- / -*	*- / 0.000*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 0.000*
Modification Item 3 of 4: AN/PSS-14 (HSTAMIDS) and HMDS												
A Kits												
Recurring												
AN/PSS-14C	5,238 / 31.404	900 / 8.076	1,105 / 11.935	882 / 11.537	- / -	882 / 11.537	- / -	- / -	- / -	- / -	- / 0.000	8,125 / 62.952
HMDS	- / -	- / 1.252	- / 8.426	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 9.678
Subtotal: Recurring	*5,238 / 31.404*	*900 / 9.328*	*1,105 / 20.361*	*882 / 11.537*	*- / -*	*882 / 11.537*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*8,125 / 72.630*
Non-Recurring												
AN/PSS-14C	- / 2.393	- / 0.425	- / 2.272	- / 0.608	- / -	- / 0.608	- / -	- / -	- / -	- / -	- / 0.000	- / 5.698
HMDS	- / -	- / 0.148	- / 0.443	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 0.591
Subtotal: Non-Recurring	*- / 2.393*	*- / 0.573*	*- / 2.715*	*- / 0.608*	*- / -*	*- / 0.608*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 6.289*
Subtotal: AN/PSS-14 (HSTAMIDS) and HMDS	*5,238 / 33.797*	*900 / 9.901*	*1,105 / 23.076*	*882 / 12.145*	*- / -*	*882 / 12.145*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*8,125 / 78.919*
Modification Item 4 of 4: Adjustments												
A Kits												
Non-Recurring												
Adjustments	- / 171.459	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 171.459
Subtotal: Non-Recurring	*- / 171.459*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 171.459*
Subtotal: Adjustments	*- / 171.459*	*- / -*	*- / -*	*- / 0.000*	*- / -*	*- / 0.000*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 171.459*
Subtotal: Procurement, All Modification Items	*5,238 / 208.046*	*900 / 10.106*	*1,105 / 23.227*	*882 / 12.278*	*- / -*	*882 / 12.278*	*- / 0.228*	*- / 0.233*	*- / 0.238*	*- / 0.249*	*- / -*	*8,125 / 254.605*
Installation												
Modification Item 2 of 4: Army Watercraft Systems	- / 12.542	- / 7.006	- / 3.263	- / 3.608	- / -	- / 3.608	- / 4.439	- / 4.579	- / 3.793	- / 3.955	- / -	- / 43.185
Subtotal: Installation	*0 / 12.542*	*0 / 7.006*	*0 / 3.263*	*0 / 3.608*	*0 / 0.000*	*0 / 3.608*	*0 / 4.439*	*0 / 4.579*	*0 / 3.793*	*0 / 3.955*	*- / -*	*0 / 43.185*

Exhibit P-3a, Individual Modification: PB 2019 Army		Date: February 2018
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 / -
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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	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)*
Total												
Total Cost (Procurement + Support + Installation)	**220.588**	**17.112**	**26.490**	**15.886**	**-**	**15.886**	**4.667**	**4.812**	**4.031**	**4.204**	**-**	**297.790**

Exhibit P-3a, Individual Modification: PB 2019 Army		Date: February 2018
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 / -
ID Code (A=Service Ready, B=Not Service Ready) :	**MDAP/MAIS Code:**	

Modification Item 1 of 4: Petroleum/Water Systems PEO-CS-CSS

Manufacturer Information

Manufacturer Name: -	Manufacturer Location: -
Administrative Leadtime *(in Months)*:	Production Leadtime *(in Months)*:

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates							
Delivery Dates							

Installation Information

Method of Implementation: -

Installation Cost	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	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 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	- / -	- / -	- / -	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2023	- / -	- / -	- / -	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
Total	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	0 / 0.000

Installation Schedule

		FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023					
	PYS	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	TC	Tot
In	1,631	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,631
Out	1,631	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,631

Exhibit P-3a, Individual Modification: PB 2019 Army		Date: February 2018
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 / -
ID Code (A=Service Ready, B=Not Service Ready) :	**MDAP/MAIS Code:**	

Modification Item 2 of 4: Army Watercraft Systems

Manufacturer Information

Manufacturer Name: Various	Manufacturer Location: Various
Administrative Leadtime *(in Months)*:	Production Leadtime *(in Months)*:

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates							
Delivery Dates							

Installation Information

Method of Implementation: -

Installation Cost	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	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 / 1.492	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 1.492
FY 2017	0 / 11.050	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 11.050
FY 2018	- / -	0 / 7.006	0 / 3.263	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 10.269
FY 2019	- / -	- / -	- / -	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	0 / 3.608	- / -	0 / 3.608	0 / 4.439	0 / 4.579	0 / 3.793	0 / 3.955	- / -	0 / 20.374
FY 2021	- / -	- / -	- / -	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	- / -	- / -	- / -	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2023	- / -	- / -	- / -	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
Total	0 / 12.542	0 / 7.006	0 / 3.263	0 / 3.608	0 / 0.000	0 / 3.608	0 / 4.439	0 / 4.579	0 / 3.793	0 / 3.955	- / -	0 / 43.185

Installation Schedule

	PYS	FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				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

Exhibit P-3a, Individual Modification: PB 2019 Army		Date: February 2018
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 / -
ID Code (A=Service Ready, B=Not Service Ready) :		**MDAP/MAIS Code:**

Modification Item 3 of 4: AN/PSS-14 (HSTAMIDS) and HMDS

Manufacturer Information

Manufacturer Name: L3 CyTerra	Manufacturer Location: Orlando, Fl
Administrative Leadtime *(in Months)*:	Production Leadtime *(in Months)*:

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates	Sep 2017	Sep 2018	Mar 2019				
Delivery Dates	Mar 2018	Jul 2019	Sep 2019				

Installation Information

Method of Implementation: -

Installation Cost	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	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	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	- / -	- / -	- / -	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	- / -	- / -	- / -	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2023	- / -	- / -	- / -	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
Total	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	0 / 0.000

Installation Schedule

	PYS	FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				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	5,238	-	-	-	900	-	-	-	1,105	-	882	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8,125
Out	3,406	152	458	458	458	306	81	225	225	225	144	-	277	499	499	499	213	-	-	-	-	-	-	-	-	-	-	-	-	-	8,125

Exhibit P-3a, Individual Modification: PB 2019 Army		Date: February 2018
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 / -
ID Code (A=Service Ready, B=Not Service Ready) :	**MDAP/MAIS Code:**	
Modification Item 4 of 4: Adjustments		

Manufacturer Information

Manufacturer Name: -	Manufacturer Location: -
Administrative Leadtime *(in Months)*:	Production Leadtime *(in Months)*:

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates							
Delivery Dates							

Installation Information

Method of Implementation (Organic): -	**Installation Quantity:** 0

Exhibit P-40a, Budget Item Justification For Aggregated Modification Items: PB 2019 Army		Date: February 2018
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: Various

Item Number / Title	ID CD	MDAP/ MAIS Code	Prior Years			FY 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 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)
TACTICAL BRIDGING MODIFICATIONS																				
MA4504 / TACTICAL BRIDGING MODIFICATIONS			-	-	49.221	-	-	10.824	-	-	5.684	-	-	2.912	-	-	-	-	-	2.912
Subtotal: TACTICAL BRIDGING MODIFICATIONS			**-**	**-**	***49.221***	**-**	**-**	***10.824***	**-**	**-**	***5.684***	**-**	**-**	***2.912***	**-**	**-**	**-**	**-**	**-**	***2.912***
Total			**-**	**-**	**49.221**	**-**	**-**	**10.824**	**-**	**-**	**5.684**	**-**	**-**	**2.912**	**-**	**-**	**-**	**-**	**-**	**2.912**

Item Number / Title	ID CD	MDAP/ MAIS Code	FY 2020			FY 2021			FY 2022			FY 2023			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)
TACTICAL BRIDGING MODIFICATIONS																				
MA4504 / TACTICAL BRIDGING MODIFICATIONS			-	-	35.685	-	-	32.858	-	-	33.122	-	-	6.551	-	-	-	-	-	176.857
Subtotal: TACTICAL BRIDGING MODIFICATIONS			**-**	**-**	***35.685***	**-**	**-**	***32.858***	**-**	**-**	***33.122***	**-**	**-**	***6.551***	**-**	**-**	**-**	**-**	**-**	***176.857***
Total			**-**	**-**	**35.685**	**-**	**-**	**32.858**	**-**	**-**	**33.122**	**-**	**-**	**6.551**	**-**	**-**	**-**	**-**	**-**	**176.857**

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
TACTICAL BRIDGING MODIFICATIONS		
MA4504 / TACTICAL BRIDGING MODIFICATIONS	Dry Support Bridge	Equipment Upgrade

Exhibit P-3a, Individual Modification: PB 2019 Army		Date: February 2018
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:** R01121 / Explosive Ordnance Disposal (EOD) Equipment R01121

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

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	-	6.139	2.000	5.798	19.200	24.998	13.400	12.739	6.916	13.960	-	80.152
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	-	6.139	2.000	5.798	19.200	24.998	13.400	12.739	6.916	13.960	-	80.152
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**-**	**6.139**	**2.000**	**5.798**	**19.200**	**24.998**	**13.400**	**12.739**	**6.916**	**13.960**	**-**	**80.152**
(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)*	-	51.158	46.512	126.043	164.103	153.362	108.943	163.321	1,729.000	83.095	-	114.667

Description:

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 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 dismounted 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 548. 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).

Exhibit P-3a, Individual Modification: PB 2019 Army		Date: February 2018
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:** R01121 / Explosive Ordnance Disposal (EOD) Equipment R01121
ID Code (A=Service Ready, B=Not Service Ready) :	**MDAP/MAIS Code:**	
Models of Systems Affected: Explosive Ordnance Disposal Equipment	**Modification Type:** Equipment Upgrade	**Related RDT&E PEs:**

Financial Plan	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	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 3: EOD Response Tool Kits												
A Kits												
Recurring												
EOD Response Tool Kits	- / -	120 / 6.098	43 / 1.952	45 / 3.572	109 / 5.600	154 / 9.172	120 / 7.702	74 / 5.371	- / -	32 / 2.380	- / 0.000	543 / 32.675
Subtotal: Recurring	*- / -*	*120 / 6.098*	*43 / 1.952*	*45 / 3.572*	*109 / 5.600*	*154 / 9.172*	*120 / 7.702*	*74 / 5.371*	*- / -*	*32 / 2.380*	*- / -*	*543 / 32.675*
Non-Recurring												
EOD Response Tool Kits	- / -	- / 0.041	- / 0.048	- / 0.448	- / -	- / 0.448	- / 0.463	- / 0.454	- / -	- / 0.202	- / 0.000	- / 1.656
Subtotal: Non-Recurring	*- / -*	*- / 0.041*	*- / 0.048*	*- / 0.448*	*- / -*	*- / 0.448*	*- / 0.463*	*- / 0.454*	*- / -*	*- / 0.202*	*- / -*	*- / 1.656*
Subtotal: EOD Response Tool Kits	*- / -*	*120 / 6.139*	*43 / 2.000*	*45 / 4.020*	*109 / 5.600*	*154 / 9.620*	*120 / 8.165*	*74 / 5.825*	*- / -*	*32 / 2.582*	*- / -*	*543 / 34.331*
Modification Item 2 of 3: DR SKO												
A Kits												
Recurring												
DR SKO	- / -	- / -	- / -	1 / 1.778	8 / 13.600	9 / 15.378	3 / 5.235	4 / 6.914	4 / 6.916	4 / 6.916	- / 0.000	24 / 41.359
Subtotal: Recurring	*- / -*	*- / -*	*- / -*	*1 / 1.778*	*8 / 13.600*	*9 / 15.378*	*3 / 5.235*	*4 / 6.914*	*4 / 6.916*	*4 / 6.916*	*- / -*	*24 / 41.359*
Subtotal: DR SKO	*- / -*	*- / -*	*- / -*	*1 / 1.778*	*8 / 13.600*	*9 / 15.378*	*3 / 5.235*	*4 / 6.914*	*4 / 6.916*	*4 / 6.916*	*- / -*	*24 / 41.359*
Modification Item 3 of 3: EOD 360 Degree Camera for MTRS												
A Kits												
Recurring												
360 Degree Camera for MTRS	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	132 / 4.190	- / 0.000	132 / 4.190
Subtotal: Recurring	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*132 / 4.190*	*- / -*	*132 / 4.190*
Non-Recurring												
360 Degree Camera for MTRS	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.272	- / 0.000	- / 0.272
Subtotal: Non-Recurring	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*	*- / 0.272*	*- / -*	*- / 0.272*
Subtotal: EOD 360 Degree Camera for MTRS	*- / -*	*- / -*	*- / -*	*- / 0.000*	*- / -*	*- / 0.000*	*- / -*	*- / -*	*- / -*	*132 / 4.462*	*- / -*	*132 / 4.462*
Subtotal: Procurement, All Modification Items	*- / -*	*120 / 6.139*	*43 / 2.000*	*46 / 5.798*	*117 / 19.200*	*163 / 24.998*	*123 / 13.400*	*78 / 12.739*	*4 / 6.916*	*168 / 13.960*	*- / -*	*699 / 80.152*
Installation												
Modification Item 1 of 3: EOD Response Tool Kits	- / -	120 / 0.000	43 / 0.000	45 / 0.000	109 / 0.000	154 / 0.000	120 / 0.000	74 / 0.000	- / -	32 / 0.000	- / -	543 / 0.000

Exhibit P-3a, Individual Modification: PB 2019 Army		Date: February 2018
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:** R01121 / Explosive Ordnance Disposal (EOD) Equipment R01121
ID Code (A=Service Ready, B=Not Service Ready) :	**MDAP/MAIS Code:**	
Models of Systems Affected: Explosive Ordnance Disposal Equipment	**Modification Type:** Equipment Upgrade	**Related RDT&E PEs:**

Financial Plan	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	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)*
Modification Item 2 of 3: DR SKO	- / -	- / -	- / -	1 / 0.000	8 / 0.000	9 / 0.000	3 / 0.000	4 / 0.000	4 / 0.000	4 / 0.000	- / -	24 / 0.000
Modification Item 3 of 3: EOD 360 Degree Camera for MTRS	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	132 / 0.000	- / -	132 / 0.000
Subtotal: Installation	*0 / 0.000*	*120 / 0.000*	*43 / 0.000*	*46 / 0.000*	*117 / 0.000*	*163 / 0.000*	*123 / 0.000*	*78 / 0.000*	*4 / 0.000*	*168 / 0.000*	*- / -*	*699 / 0.000*
Total												
Total Cost (Procurement + Support + Installation)	**-**	**6.139**	**2.000**	**5.798**	**19.200**	**24.998**	**13.400**	**12.739**	**6.916**	**13.960**	**-**	**80.152**

Exhibit P-3a, Individual Modification: PB 2019 Army		Date: February 2018
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:** R01121 / Explosive Ordnance Disposal (EOD) Equipment R01121

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

Modification Item 1 of 3: EOD Response Tool Kits

Manufacturer Information

Manufacturer Name: TBS	Manufacturer Location: TBS
Administrative Leadtime *(in Months)*: 8	Production Leadtime *(in Months)*: 7

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates	Aug 2017	May 2018	May 2019	May 2020	May 2021	May 2022	May 2023
Delivery Dates	May 2018	Feb 2019	Feb 2020	Feb 2021	Feb 2022	Feb 2023	Feb 2024

Installation Information

Method of Implementation: TBD

Installation Cost	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	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	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	- / -	120 / 0.000	- / -	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	120 / 0.000
FY 2018	- / -	- / -	43 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	43 / 0.000
FY 2019	- / -	- / -	- / -	45 / 0.000	109 / 0.000	154 / 0.000	- / -	- / -	- / -	- / -	- / -	154 / 0.000
FY 2020	- / -	- / -	- / -	0 / 0.000	- / -	0 / 0.000	120 / 0.000	- / -	- / -	- / -	- / -	120 / 0.000
FY 2021	- / -	- / -	- / -	0 / 0.000	- / -	0 / 0.000	- / -	74 / 0.000	- / -	- / -	- / -	74 / 0.000
FY 2022	- / -	- / -	- / -	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2023	- / -	- / -	- / -	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	32 / 0.000	- / -	32 / 0.000
To Complete	- / -	- / -	- / -	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
Total	0 / 0.000	120 / 0.000	43 / 0.000	45 / 0.000	109 / 0.000	154 / 0.000	120 / 0.000	74 / 0.000	- / -	32 / 0.000	- / -	543 / 0.000

Installation Schedule

		FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023					
	PYS	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	TC	Tot
In	-	-	-	30	30	30	30	11	11	11	10	39	39	39	37	30	30	30	30	19	19	19	17	-	-	-	-	16	16	-	543
Out	-	-	-	-	-	-	-	30	30	30	30	11	11	11	10	39	39	39	37	30	30	30	30	19	19	19	17	-	-	32	543

Exhibit P-3a, Individual Modification: PB 2019 Army		Date: February 2018
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:** R01121 / Explosive Ordnance Disposal (EOD) Equipment R01121
ID Code (A=Service Ready, B=Not Service Ready) :		**MDAP/MAIS Code:**
Modification Item 2 of 3: DR SKO		

Manufacturer Information

Manufacturer Name: TBS	Manufacturer Location: TBS
Administrative Leadtime *(in Months)*: 8	Production Leadtime *(in Months)*: 7

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates			May 2019	May 2020	May 2021	May 2022	May 2023
Delivery Dates			Feb 2020	Feb 2021	Feb 2022	Feb 2023	Feb 2024

Installation Information

Method of Implementation: TBD

Installation Cost	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	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	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	- / -	- / -	- / -	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	1 / 0.000	8 / 0.000	9 / 0.000	- / -	- / -	- / -	- / -	- / -	9 / 0.000
FY 2020	- / -	- / -	- / -	0 / 0.000	- / -	0 / 0.000	3 / 0.000	- / -	- / -	- / -	- / -	3 / 0.000
FY 2021	- / -	- / -	- / -	0 / 0.000	- / -	0 / 0.000	- / -	4 / 0.000	- / -	- / -	- / -	4 / 0.000
FY 2022	- / -	- / -	- / -	0 / 0.000	- / -	0 / 0.000	- / -	- / -	4 / 0.000	- / -	- / -	4 / 0.000
FY 2023	- / -	- / -	- / -	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	4 / 0.000	- / -	4 / 0.000
To Complete	- / -	- / -	- / -	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
Total	0 / 0.000	0 / 0.000	0 / 0.000	1 / 0.000	8 / 0.000	9 / 0.000	3 / 0.000	4 / 0.000	4 / 0.000	4 / 0.000	- / -	24 / 0.000

Installation Schedule

		FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023					
	PYS	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	TC	Tot
In	-	-	-	-	-	-	-	-	-	-	-	9	-	-	-	3	-	-	-	4	-	-	-	4	-	-	-	4	-	-	24
Out	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9	-	-	-	3	-	-	-	4	-	-	-	4	-	-	4	24

Exhibit P-3a, Individual Modification: PB 2019 Army		Date: February 2018
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:** R01121 / Explosive Ordnance Disposal (EOD) Equipment R01121
ID Code (A=Service Ready, B=Not Service Ready) :		**MDAP/MAIS Code:**

Modification Item 3 of 3: EOD 360 Degree Camera for MTRS

Manufacturer Information

Manufacturer Name: TBS	Manufacturer Location: TBS
Administrative Leadtime *(in Months)*: 8	Production Leadtime *(in Months)*: 7

Dates	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Contract Dates							May 2023
Delivery Dates							Feb 2024

Installation Information

Method of Implementation: TBD

Installation Cost	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	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	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	- / -	- / -	- / -	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	- / -	- / -	- / -	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2023	- / -	- / -	- / -	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	132 / 0.000	- / -	132 / 0.000
To Complete	- / -	- / -	- / -	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
Total	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	132 / 0.000	- / -	132 / 0.000

Installation Schedule

		FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023					
	PYS	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	TC	Tot
In	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	33	33	66	132
Out	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	132	132

Exhibit P-40, Budget Line Item Justification: PB 2019 Army	Date: February 2018
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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	239.472	1.528	2.271	2.301	-	2.301	2.344	2.411	2.479	2.525	-	255.331
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	239.472	1.528	2.271	2.301	-	2.301	2.344	2.411	2.479	2.525	-	255.331
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**239.472**	**1.528**	**2.271**	**2.301**	**-**	**2.301**	**2.344**	**2.411**	**2.479**	**2.525**	**-**	**255.331**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost *($ in Thousands)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Thousands)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

This program provides funding to the Army Test and Evaluation Command (ATEC) to establish, modernize, expand or replace test facilities used in production testing of General Support Equipment (including trucks, trailers, generators, soldier support equipment, etc.). It sustains Army production test capabilities through upgrade and replacement of instrumentation and equipment that is technologically and/or economically obsolete. Modernization of test instrumentation and equipment provides increased automation and efficiencies, improved data quality and quantity and cost avoidances to Army Program Managers. Programmed funding will be 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 YTCs Cold Regions Test Center (CRTC), Fort Greely, AK).

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023
Army	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	1.528	2.271	2.301	-	2.301	2.344	2.411	2.479	2.525
Total: Secondary Distribution	**Quantity**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
	Total Obligation Authority	**1.528**	**2.271**	**2.301**	**-**	**2.301**	**2.344**	**2.411**	**2.479**	**2.525**

Justification:

FY 2019 Base procurement dollars in the amount of $2.301 million supports the following efforts:

At ATC, procures modern industrial shop equipment (welding and cutting machines) used in fabrication of support items required for Production Qualification Testing (such as rotors, stands, sleighs, camera mounts and instrumentation brackets); replaces old surveying equipment with modern digital systems used for surveying test sites; provides lifecycle replacement of analytical chemistry laboratory equipment used to characterize test item materials and support failure analysis and procures new robust laptop personal computers (PC) to provide data collectors with the capability to support activities involving the acquisition, review, and processing of reliability, availability and maintainability (RAM), Integrated Logistics Support (ILS) and performance test data. PCs will give ATC the capability to use "State-of-the-Art" technologies to streamline the process involved in the acquisition, processing, and distribution of test data. At YTC, procures replacement transducers used to collect performance data during automotive tests (including sensors, load cells, thermocouple amplifiers, pressure transducers, embedded wireless sensors, strain gages, current transducers and thermocouples); replaces obsolete air delivery aircraft

Exhibit P-40, Budget Line Item Justification: PB 2019 Army		Date: February 2018
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		

and airdrop load instrumentation in the areas of aircraft telemetry, aircraft on board video, payload telemetry, and payload data recorders and purchases on board data acquisition and recording equipment for collecting vehicle performance data in harsh desert environments.

Exhibit P-40, Budget Line Item Justification: PB 2019 Army	Date: February 2018
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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	7	10	11	12	-	12	12	26	21	24	-	123
Gross/Weapon System Cost *($ in Millions)*	633.426	14.289	5.319	11.608	-	11.608	7.409	37.007	37.151	37.968	-	784.177
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	633.426	14.289	5.319	11.608	-	11.608	7.409	37.007	37.151	37.968	-	784.177
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**633.426**	**14.289**	**5.319**	**11.608**	**-**	**11.608**	**7.409**	**37.007**	**37.151**	**37.968**	**-**	**784.177**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost *($ in Thousands)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Thousands)*	90,489.429	1,428.900	483.545	967.333	-	967.333	617.417	1,423.346	1,769.095	1,582.000	-	6,375.423

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. Budget Item procures a variety of test assets, such as Threat Battle Command Force, Threat Operations, and Advanced Jammer 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).

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023
Army	Quantity	10	11	12	-	12	12	26	21	24
	Total Obligation Authority	14.289	5.319	11.608	-	11.608	7.409	37.007	37.151	37.968
Total: Secondary Distribution	**Quantity**	**10**	**11**	**12**	**-**	**12**	**12**	**26**	**21**	**24**
	Total Obligation Authority	**14.289**	**5.319**	**11.608**	**-**	**11.608**	**7.409**	**37.007**	**37.151**	**37.968**

Exhibit P-40, Budget Line Item Justification: PB 2019 Army	Date: February 2018
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

Exhibits Schedule					Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 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	MA6700 / Special Equipment For User Testing	P-5a, P-21			7 / 633.426	10 / 14.289	11 / 5.319	12 / 11.608	- / -	12 / 11.608
P-40	**Total Gross/Weapon System Cost**				**7 / 633.426**	**10 / 14.289**	**11 / 5.319**	**12 / 11.608**	**- / -**	**12 / 11.608**

*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 2019 Base procurement dollars in the amount of $11.608 million procures multiple threat systems (Electronic Warfare (EW), Command, Control, and Communications, and Advanced Jamming) required to support 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 Army Warfighter Assessments and Network Integration Evaluation events. Validated threat jammers are a critical element to maintaining 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, such as the Network Integration Evaluation.

Exhibit P-5, Cost Analysis: PB 2019 Army		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 90	**P-1 Line Item Number / Title:** 1572MA6700 / Special Equipment For User Testing	**Item Number / Title [DODIC]:** MA6700 / Special Equipment For User Testing
ID Code (A=Service Ready, B=Not Service Ready) :		**MDAP/MAIS Code:**

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Procurement Quantity *(Units in Each)*	7	10	11	12	-	12
Gross/Weapon System Cost *($ in Millions)*	633.426	14.289	5.319	11.608	-	11.608
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	633.426	14.289	5.319	11.608	-	11.608
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**633.426**	**14.289**	**5.319**	**11.608**	**-**	**11.608**
(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)*	90,489.429	1,428.900	483.545	967.333	-	967.333

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

Cost Elements	Prior Years			FY 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 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 Force Battle Command Force(†)	4,158.600	5	20.793	1,310.000	1	1.310	-	-	-	345.889	9	3.113	-	-	-	345.889	9	3.113
Threat Operations(†)	3,848.417	12	46.181	1,108.000	1	1.108	1,361.000	1	1.361	2,963.000	1	2.963	-	-	-	2,963.000	1	2.963
Advanced Jammer Suite(†)	-	-	-	1,174.200	5	5.871	395.800	10	3.958	2,766.000	2	5.532	-	-	-	2,766.000	2	5.532
Threat Signal Injection Jammer	2,256.781	251	566.452	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Recurring Cost	-	-	*633.426*	-	-	*8.289*	-	-	*5.319*	-	-	*11.608*	-	-	-	-	-	*11.608*
Non Recurring Cost																		
NOSC Equipment	-	-	-	188.000	1	0.188	-	-	-	-	-	-	-	-	-	-	-	-
Red Team Infrastructure Equipment	-	-	-	2,598.000	1	2.598	-	-	-	-	-	-	-	-	-	-	-	-
Red Team Training Equipment	-	-	-	3,214.000	1	3.214	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Non Recurring Cost	-	-	-	-	-	*6.000*	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Flyaway Cost	**-**	**-**	***633.426***	**-**	**-**	***14.289***	**-**	**-**	***5.319***	**-**	**-**	***11.608***	**-**	**-**	**-**	**-**	**-**	***11.608***
Gross/Weapon System Cost	**90,489.429**	**7**	**633.426**	**1,428.900**	**10**	**14.289**	**483.545**	**11**	**5.319**	**967.333**	**12**	**11.608**	**-**	**-**	**-**	**967.333**	**12**	**11.608**

Exhibit P-5, Cost Analysis: PB 2019 Army		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 90	**P-1 Line Item Number / Title:** 1572MA6700 / Special Equipment For User Testing	**Item Number / Title [DODIC]:** MA6700 / Special Equipment For User Testing
ID Code (A=Service Ready, B=Not Service Ready) :		**MDAP/MAIS Code:**

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Army	Quantity	10	11	12	-	12
	Total Obligation Authority	14.289	5.319	11.608	-	11.608
Total: Secondary Distribution	**Quantity**	**10**	**11**	**12**	**-**	**12**
	Total Obligation Authority	**14.289**	**5.319**	**11.608**	**-**	**11.608**

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2019 Army		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 90	P-1 Line Item Number / Title: 1572MA6700 / Special Equipment For User Testing	Item Number / Title [DODIC]: MA6700 / Special Equipment For User Testing

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
Threat Force Battle Command Force		2017	General Dynamics C4 Sys / Scottsdale, AZ	C / CPFF	PEO STRI, Orlando, FL	Dec 2016	Dec 2017	1	1,310.000	Y		
Threat Force Battle Command Force		2019	TBD / TBD	C / CPFF	PEO STRI, Orlando, FL	Jan 2019	Jul 2019	9	345.890	N		
Threat Operations		2017	Test & Evaluation Ser&Tech LLC / Herndon, VA	C / CPFF	PEO STRI, Orlando, FL	Dec 2016	Dec 2017	1	1,108.000	Y		
Threat Operations		2018	Test & Evaluation Ser&Tech LLC / Herndon, VA	C / CPFF	PEO STRI, Orlando, FL	Dec 2017	Dec 2018	1	1,361.000	Y		
Threat Operations		2019	TBD / TBD	C / CPFF	PEO STRI, Orlando, FL	Dec 2018	Dec 2019	1	2,963.000	Y		
Advanced Jammer Suite(†)		2017	General Dynamics C4 Sys / Scottsdale, AZ	C / CPFF	PEO STRI, Orlando, FL	Nov 2017	May 2018	5	1,174.200	Y		
Advanced Jammer Suite(†)		2018	TBD / TBD	C / CPFF	PEO STRI, Orlando, FL	Jan 2018	Sep 2018	10	395.800	Y		
Advanced Jammer Suite(†)		2019	TBD / TBD	C / CPFF	PEO STRI, Orlando, FL	Nov 2018	Oct 2019	2	2,766.000	N		

(†) indicates the presence of a P-21

Remarks:
The Advanced Jammer Suite provides current validated threat representative open air electronic attack capability that includes Frequency Follower jamming, Digital Radio Frequency Memory (DRFM) jamming, and advanced Position, Navigation and Timing (PNT) jamming in support of Army operational test and evaluation. Unit costs (comprised of prime movers, hardware and software to support Cyber Electromagnetic Activity (CEMA) and Electronic Warfare (EW)) varies due to the complexity and number of tests required for each suite. Threat requirements change rapidly based on intelligence estimates and may result in differences between procurement cycles and variations with individual articles within the same procurement cycle.

Exhibit P-21, Production Schedule: PB 2019 Army		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 90	**P-1 Line Item Number / Title:** 1572MA6700 / Special Equipment For User Testing	**Item Number / Title [DODIC]:** MA6700 / Special Equipment For User Testing

Cost Elements (Units in Each)							Fiscal Year 2017												Fiscal Year 2018												BALANCE
										Calendar Year 2017														Calendar Year 2018									
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2016	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
Advanced Jammer Suite																															
	1	2017	ARMY	5	0	5														A	-	-	-	-	-	-	1	-	-	-	4	0
	2	2018	ARMY	10	0	10																A	-	-	-	-	-	-	-	-	1	9
	2	2019	ARMY	2	0	2																										2
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP		

Exhibit P-21, Production Schedule: PB 2019 Army		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 90	**P-1 Line Item Number / Title:** 1572MA6700 / Special Equipment For User Testing	**Item Number / Title [DODIC]:** MA6700 / Special Equipment For User Testing

Cost Elements (Units in Each)							Fiscal Year 2019												Fiscal Year 2020												BALANCE
										Calendar Year 2019														Calendar Year 2020									
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2018	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
Advanced Jammer Suite																															
	1	2017	ARMY	5	5	0																									0
	2	2018	ARMY	10	1	9	3	3	3																						0
	2	2019	ARMY	2	0	2		A -	-	-	-	-	-	-	-	-	-	-	2												0
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2019 Army		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 90	**P-1 Line Item Number / Title:** 1572MA6700 / Special Equipment For User Testing	**Item Number / Title [DODIC]:** MA6700 / Special Equipment For User Testing

MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Month)			Procurement Leadtime (Months)							
					Initial				Reorder			
		MSR For 2019	1-8-5 For 2019	MAX For 2019	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	General Dynamics C4 Sys - Scottsdale, AZ	1	2	3	0	13	7	20	0	0	0	0
2	TBD - TBD	1	1	10	3	9	12	21	0	1	12	13

"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).

Exhibit P-40, Budget Line Item Justification: PB 2019 Army	Date: February 2018
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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	121.976	6.888	5.935	4.956	-	4.956	4.957	5.000	5.000	5.100	-	159.812
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	121.976	6.888	5.935	4.956	-	4.956	4.957	5.000	5.000	5.100	-	159.812
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**121.976**	**6.888**	**5.935**	**4.956**	**-**	**4.956**	**4.957**	**5.000**	**5.000**	**5.100**	**-**	**159.812**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost *($ in Thousands)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Thousands)*	-	-	-	-	-	-	-	-	-	-	-	-

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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023
Army	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	6.888	5.935	4.956	-	4.956	4.957	5.000	5.000	5.100
Total: Secondary Distribution	**Quantity**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
	Total Obligation Authority	**6.888**	**5.935**	**4.956**	**-**	**4.956**	**4.957**	**5.000**	**5.000**	**5.100**

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.

Exhibit P-40, Budget Line Item Justification: PB 2019 Army		Date: February 2018
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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Procurement Quantity *(Units in Each)*	23	0	600	600	-	600	750	770	800	800	-	4,343
Gross/Weapon System Cost *($ in Millions)*	417.373	26.650	38.269	9.817	-	9.817	10.757	10.961	11.157	11.270	-	536.254
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	417.373	26.650	38.269	9.817	-	9.817	10.757	10.961	11.157	11.270	-	536.254
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**417.373**	**26.650**	**38.269**	**9.817**	**-**	**9.817**	**10.757**	**10.961**	**11.157**	**11.270**	**-**	**536.254**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost *($ in Thousands)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Thousands)*	18,146.652	-	63.782	16.362	-	16.362	14.343	14.235	13.946	14.088	-	123.475

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 Reparable (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 thirteen 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), Replacement Patch Test Facility (RPTF), Replacement Radio Frequency Interconnecting Subsystem (RRFIS), Global Terrestrial Critical Control Circuit System (GTC3S), Remote Monitoring and Control Equipment (RMCE), Joint SATCOM Engineering Center (JSEC), Joint Management and Operations System (JMOS), Global Satellite Configuration Control Element (GSCCE), Common Network Planning System (CNPS), and Wideband Training and Certification System (WTCS).

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023
Army	Quantity	-	600	600	-	600	750	770	800	800
	Total Obligation Authority	26.650	38.269	9.817	-	9.817	10.757	10.961	11.157	11.270
Total: Secondary Distribution	**Quantity**	**-**	**600**	**600**	**-**	**600**	**750**	**770**	**800**	**800**
	Total Obligation Authority	**26.650**	**38.269**	**9.817**	**-**	**9.817**	**10.757**	**10.961**	**11.157**	**11.270**

Exhibit P-40, Budget Line Item Justification: PB 2019 Army		Date: February 2018
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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 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	BS9710 / MCS SPARES				23 / 28.324	0 / -	600 / 4.869	- / -	- / -	- / -
P-5	BS9716 / NON PEO-SPARES		A		- / 53.219	- / 2.545	- / 3.135	600 / 3.131	- / -	600 / 3.131
P-5	BS9721 / DEFENSE SATCOM SYS SPARES (SPACE)				- / 144.929	- / 4.297	- / 6.330	- / 6.686	- / -	- / 6.686
P-5	BS9741 / WIN-T INCREMENT 2 Spares				- / 190.901	- / 19.808	- / 23.935	- / -	- / -	- / -
P-40	**Total Gross/Weapon System Cost**				**23 / 417.373**	**0 / 26.650**	**600 / 38.269**	**600 / 9.817**	**- / -**	**600 / 9.817**

*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 2019 Base procurement funding in the amount of $9.817 million procures Depot Level Reparable (DLR) secondary items from the Supply Management, Army activity of the Army Working Capital Fund.

BS9716 / Non-PEO Spares: FY 2019 Base procurement dollars in the amount of $3.131 million procures Depot Level Reparable (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 2019 Base procurement dollars in the amount of $6.686 million procures spares for Modernization of Enterprise Terminals (MET) systems, Enterprise Wideband Satellite Payload Control Systems, and Digital Communications Satellite Subsystems.

Exhibit P-5, Cost Analysis: PB 2019 Army		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 04 / 20	**P-1 Line Item Number / Title:** 0200BS9100 / INITIAL SPARES - C&E	**Item Number / Title [DODIC]:** BS9710 / MCS SPARES
ID Code (A=Service Ready, B=Not Service Ready) :		**MDAP/MAIS Code:**

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Procurement Quantity *(Units in Each)*	23	0	600	-	-	-
Gross/Weapon System Cost *($ in Millions)*	28.324	-	4.869	-	-	-
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	28.324	-	4.869	-	-	-
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**28.324**	**-**	**4.869**	**-**	**-**	**-**
(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)*	1,231.478	-	8.115	-	-	-

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

Cost Elements	Prior Years			FY 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 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																		
Work Stations	3.557	4,567	16.245	-	-	-	3.573	600	2.144	-	-	-	-	-	-	-	-	-
Other Hardware	-	-	12.079	-	-	-	-	-	2.725	-	-	-	-	-	-	-	-	-
Subtotal: Recurring Cost	-	-	*28.324*	-	-	-	-	-	*4.869*	-	-	-	-	-	-	-	-	-
Subtotal: Hardware Cost	**-**	**-**	***28.324***	**-**	**-**	**-**	**-**	**-**	***4.869***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Gross/Weapon System Cost	**1,231.478**	**23**	**28.324**	**-**	**0**	**-**	**8.115**	**600**	**4.869**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Army	Quantity	-	600	-	-	-
	Total Obligation Authority	-	4.869	-	-	-
Total: Secondary Distribution	**Quantity**	**0**	**600**	**-**	**-**	**-**
	Total Obligation Authority	**-**	**4.869**	**-**	**-**	**-**

Exhibit P-5, Cost Analysis: PB 2019 Army		Date: February 2018
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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Procurement Quantity *(Units in Each)*	-	-	-	600	-	600
Gross/Weapon System Cost *($ in Millions)*	53.219	2.545	3.135	3.131	-	3.131
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	53.219	2.545	3.135	3.131	-	3.131
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**53.219**	**2.545**	**3.135**	**3.131**	**-**	**3.131**
(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)*	-	-	-	5.218	-	5.218

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

Cost Elements	Prior Years			FY 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 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 - Initial Spares and Repair Parts Cost																		
Initial Spares and Repair Parts	-	-	53.219	-	-	2.545	-	-	3.135	-	-	3.131	-	-	-	-	-	3.131
Subtotal: Support - Initial Spares and Repair Parts Cost	**-**	**-**	***53.219***	**-**	**-**	***2.545***	**-**	**-**	***3.135***	**-**	**-**	***3.131***	**-**	**-**	**-**	**-**	**-**	***3.131***
Gross/Weapon System Cost	**-**	**-**	**53.219**	**-**	**-**	**2.545**	**-**	**-**	**3.135**	**5.218**	**600**	**3.131**	**-**	**-**	**-**	**5.218**	**600**	**3.131**

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Army	Quantity	-	0	600	-	600
	Total Obligation Authority	2.545	3.135	3.131	-	3.131
Total: Secondary Distribution	**Quantity**	**-**	**-**	**600**	**-**	**600**
	Total Obligation Authority	**2.545**	**3.135**	**3.131**	**-**	**3.131**

Exhibit P-5, Cost Analysis: PB 2019 Army		Date: February 2018
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 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	144.929	4.297	6.330	6.686	-	6.686
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	144.929	4.297	6.330	6.686	-	6.686
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**144.929**	**4.297**	**6.330**	**6.686**	**-**	**6.686**
(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 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 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	-	-	-	-	-	0.070	-	-	0.072	-	-	-	-	-	0.072
Wideband Remote Monitoring Sensor (WRMS)	-	-	42.372	-	-	-	-	-	0.045	-	-	0.047	-	-	-	-	-	0.047
Modernization of Enterprise Terminals (MET)	-	-	57.259	-	-	3.677	-	-	3.692	-	-	4.023	-	-	-	-	-	4.023
Wideband Operational Mgmt System (WSOMS)	-	-	-	-	-	0.620	-	-	0.016	-	-	0.018	-	-	-	-	-	0.018
Replacement Patch Test Facility (RPTF)	-	-	-	-	-	-	-	-	0.030	-	-	0.032	-	-	-	-	-	0.032
Replacement Radio Frequency Interconnecting Subsystem (RRFIS)	-	-	-	-	-	-	-	-	0.361	-	-	0.363	-	-	-	-	-	0.363
Global Terrestrial Critical Control Circuit System (GTC3S)	-	-	-	-	-	-	-	-	0.504	-	-	0.506	-	-	-	-	-	0.506
Remote Monitoring and Control Equipment (RMCE)	-	-	-	-	-	-	-	-	0.400	-	-	0.402	-	-	-	-	-	0.402

Exhibit P-5, Cost Analysis: PB 2019 Army		Date: February 2018
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 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 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)	-	-	-	-	-	-	-	-	0.080	-	-	0.082	-	-	-	-	-	0.082
Joint Management and Operations System (JMOS)	-	-	-	-	-	-	-	-	0.290	-	-	0.292	-	-	-	-	-	0.292
Global Satellite Configuration Control Element (GSCCE)	-	-	-	-	-	-	-	-	0.230	-	-	0.232	-	-	-	-	-	0.232
Common Network Planning System (CNPS)	-	-	-	-	-	-	-	-	0.505	-	-	0.507	-	-	-	-	-	0.507
Wideband Training and Certification System (WTCS)	-	-	-	-	-	-	-	-	0.107	-	-	0.110	-	-	-	-	-	0.110
Subtotal: Recurring Cost	-	-	*144.929*	-	-	*4.297*	-	-	*6.330*	-	-	*6.686*	-	-	-	-	-	*6.686*
Subtotal: Flyaway Cost	**-**	**-**	***144.929***	**-**	**-**	***4.297***	**-**	**-**	***6.330***	**-**	**-**	***6.686***	**-**	**-**	**-**	**-**	**-**	***6.686***
Gross/Weapon System Cost	**-**	**-**	**144.929**	**-**	**-**	**4.297**	**-**	**-**	**6.330**	**-**	**-**	**6.686**	**-**	**-**	**-**	**-**	**-**	**6.686**

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Army	Quantity	-	-	-	-	-
	Total Obligation Authority	4.297	6.330	6.686	-	6.686
Total: Secondary Distribution	**Quantity**	**-**	**-**	**-**	**-**	**-**
	Total Obligation Authority	**4.297**	**6.330**	**6.686**	**-**	**6.686**

Exhibit P-5, Cost Analysis: PB 2019 Army		Date: February 2018
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 04 / 20	**P-1 Line Item Number / Title:** 0200BS9100 / INITIAL SPARES - C&E	**Item Number / Title [DODIC]:** BS9741 / WIN-T INCREMENT 2 Spares
ID Code (A=Service Ready, B=Not Service Ready) :	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	190.901	19.808	23.935	-	-	-
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	190.901	19.808	23.935	-	-	-
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**190.901**	**19.808**	**23.935**	**-**	**-**	**-**
(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 2017			FY 2018			FY 2019 Base			FY 2019 OCO			FY 2019 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																		
Initial Spares Packages	-	-	190.901	-	-	19.808	-	-	23.935	-	-	-	-	-	-	-	-	-
Subtotal: Recurring Cost	-	-	*190.901*	-	-	*19.808*	-	-	*23.935*	-	-	-	-	-	-	-	-	-
Subtotal: Flyaway Cost	**-**	**-**	***190.901***	**-**	**-**	***19.808***	**-**	**-**	***23.935***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Gross/Weapon System Cost	**-**	**-**	**190.901**	**-**	**-**	**19.808**	**-**	**-**	**23.935**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**

Secondary Distribution		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Army	Quantity	-	-	-	-	-
	Total Obligation Authority	19.808	23.935	-	-	-
Total: Secondary Distribution	**Quantity**	**-**	**-**	**-**	**-**	**-**
	Total Obligation Authority	**19.808**	**23.935**	**-**	**-**	**-**