Department of Defense
Fiscal Year (FY) 2022 Budget Estimates

May 2021

Army

Justification Book Volume 3 of 3

Other Procurement, Army

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

Volume 3 Table of Contents

Introduction and Explanation of Contents.....Volume 3 - ii

Comptroller Exhibit P-1.....Volume 3 - iv

Master Line Item Table of Contents (by Appropriation then Line Number).....Volume 3 - xvii

Master Line Item Table of Contents (Alphabetically by Line Item Title).....Volume 3 - xxviii

Line Item Table of Contents (by Appropriation then Line Number)..... Volume 3 - xxxvii

Line Item Table of Contents (Alphabetically by Line Item Title).....Volume 3 - xli

Exhibit P-1M, Procurement Programs - Modification Summary.....Volume 3 - xlv

Exhibit P-40s.....Volume 3 - 1

Cost Statement

The following Justification Books were prepared at a cost of $472,560: 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 5C, Budget Activity 6, Budget Activity 7, and Budget Activity 8.

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, $8,873,558,000 to remain available for obligation until September 30, 2024.

The FY 2022 Overseas Contingency Operations accounted for in the base budget are as follows:

Direct War costs accounted for in the Base Budget: $265,947,000: Direct War costs are those combat or direct combat support costs that will not continue to be expended once combat operations end at major contingency locations.

Enduring costs accounted for in the Base Budget: $318,830,000: Enduring Requirements are enduring in theater and in CONUS costs that will likely remain after combat operations cease, and have previously been funded in OCO.

FY 2021 includes Division C, Title IX and Division J, Title IV of the Consolidated Appropriations Act, 2021 (P.L. 116-260).

FY 2020 includes Division A, Title IX and X of the Consolidated Appropriations Act, 2020 (P.L. 116-93), Division F, Title IV and V from the Further Consolidated Appropriations Act, 2020 (P.L. 116-94) and the Coronavirus Aid, Relief, and Economic Security Act (P.L. 116-136).

Department of the Army
FY 2022 President's Budget
Exhibit P-1 FY 2022 President's Budget
Total Obligational Authority
(Dollars in Thousands)

05 May 2021

Appropriation	FY 2020 Actual*	FY 2021 Enacted**	FY 2022 Request
Other Procurement, Army	8,551,633	9,527,935	8,873,558
Total Department of the Army	8,551,633	9,527,935	8,873,558

Department of the Army
FY 2022 President's Budget
Exhibit P-1 FY 2022 President's Budget
Total Obligational Authority
(Dollars in Thousands)

05 May 2021

Appropriation: Other Procurement, Army

Budget Activity	FY 2020 Actual*	FY 2021 Enacted**	FY 2022 Request
01. Tactical and Support Vehicles	1,814,863	1,690,185	939,081
02. Communications and Electronics Equipment	4,219,959	5,276,078	5,822,037
03. Other Support Equipment	2,507,054	2,551,722	2,103,168
04. Spare and Repair Parts	9,757	9,950	9,272
Total Other Procurement, Army	8,551,633	9,527,935	8,873,558

Department of the Army
FY 2022 President's Budget
Exhibit P-1 FY 2022 President's Budget
Total Obligational Authority
(Dollars in Thousands)

05 May 2021

Appropriation: 2035A Other Procurement, Army

Line No	Item Nomenclature	Ident Code	FY 2020 Actual* Quantity	FY 2020 Actual* Cost	FY 2021 Enacted** Quantity	FY 2021 Enacted** Cost	FY 2022 Request Quantity	FY 2022 Request Cost	Sec
Budget Activity 01: Tactical and Support Vehicles									
Tactical Vehicles									
1	Tactical Trailers/Dolly Sets	A		12,993		9,653			U
2	Semitrailers, Flatbed:	A		102,386		22,460		12,539	U
3	Semitrailers, tankers	A				17,082		17,985	U
4	HI MOB MULTI-PURP WHLD VEH (HMMWV)			127,271		126,747		60,706	U
5	Ground Mobility Vehicles (GMV)	A		37,038		29,247		29,807	U
6	ARNG HMMWV Modernization Program	A				100,000			U
7	JOINT LIGHT TACTICAL VEHICLE	A		972,407					U
8	JOINT LIGHT TACTICAL VEHICLE FAMILY OF VEHICL	A				884,414		574,562	U
9	TRUCK, DUMP, 20T (CCE)			13,006		29,368		9,882	U
10	Family Of Medium Tactical Veh (FMTV)			138,057		181,092		36,885	U
11	Family of Cold Weather All-Terrain Vehicle (C	A				9,249		16,450	U
12	Firetrucks & Associated Firefighting Equip			28,048		27,687		26,256	U
13	Family Of Heavy Tactical Vehicles (FHTV)			38,718		6,500		64,282	U
14	PLS ESP	A		25,543		33,146		16,943	U
15	Hvy Expanded Mobile Tactical Truck Ext Serv			95,683		92,619			U
16	HMMWV Recapitalization Program			36,734					U
17	Tactical Wheeled Vehicle Protection Kits	A		85,113		63,563		17,957	U
18	Modification Of In Svc Equip			73,627		56,112		29,349	U

Department of the Army
FY 2022 President's Budget
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(Dollars in Thousands)

05 May 2021

Appropriation: 2035A Other Procurement, Army

Line No	Item Nomenclature	Ident Code	FY 2020 Actual* Quantity	FY 2020 Actual* Cost	FY 2021 Enacted** Quantity	FY 2021 Enacted** Cost	FY 2022 Request Quantity	FY 2022 Request Cost	Sec
	Non-Tactical Vehicles								
19	Heavy Armored Vehicle			791					U
20	Passenger Carrying Vehicles			1,416		1,246		1,232	U
21	NonTactical Vehicles, Other	A		26,032				24,246	U
	Total Tactical and Support Vehicles			1,814,863		1,690,185		939,081	
	Budget Activity 02: Communications and Electronics Equipment								
	Comm - Joint Communications								
22	Signal Modernization Program	A		128,913		151,179		140,036	U
23	Tactical Network Technology Mod In Svc	A		483,439		347,782		436,524	U
24	SITUATION INFORMATION TRANSPORT	A		46,693		63,396			U
25	Disaster Incident Response Comms Terminal (DI	A						3,863	U
26	JCSE Equipment (USRDECOM)			5,075		5,170		4,845	U
	Comm - Satellite Communications								
27	Spectrum METSAT	A		6,800					U
28	Spectrum Portal	A		51					U
29	Defense Enterprise Wideband Satcom Systems			98,399		101,498		97,369	U
30	Transportable Tactical Command Communications	A		99,071		110,450		120,550	U
31	SHF Term			15,054		13,173		38,129	U
32	Assured Positioning, Navigation and Timing	A		43,452		140,953		115,291	U
33	SMART-T (SPACE)			11,340		8,900		15,407	U
34	Global Brdcst Svc - GBS			11,800		8,510		2,763	U

P-122BAS: FY 2022 President's Budget (Total Base Published Version), as of May 5, 2021 at 14:05:21

Department of the Army
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(Dollars in Thousands)

05 May 2021

Appropriation: 2035A Other Procurement, Army

Line No	Item Nomenclature	Ident Code	FY 2020 Actual* Quantity	FY 2020 Actual* Cost	FY 2021 Enacted** Quantity	FY 2021 Enacted** Cost	FY 2022 Request Quantity	FY 2022 Request Cost	Sec
35	ENROUTE MISSION COMMAND (EMC)	A		8,609					U
36	Spectrum Microwave			17,233					U
	Comm - C3 System								
37	COE Tactical Server Infrastructure (TSI)	A		67,533		86,198		99,858	U
	Comm - Combat Communications								
38	Handheld Manpack Small Form Fit (HMS)	A		468,026		547,148		775,069	U
39	Radio Terminal Set, MIDS LVT(2)	A		24,128		8,237			U
40	ARMY LINK 16 SYSTEMS	A						17,749	U
41	Spider Family of Networked Munitions Incr	A		10,930					U
42	Unified Command Suite	A		18,291		19,579		17,984	U
43	COTS Communications Equipment	A		76,030		108,556		191,702	U
44	Family of Med Comm for Combat Casualty Care	A		19,221		19,570		15,957	U
45	Army Communications & Electronics	A		37,856		51,480		89,441	U
	Comm - Intelligence Comm								
47	CI AUTOMATION ARCHITECTURE-INTEL	A		17,078		14,376		13,317	U
48	Defense Military Deception Initiative	A		3,704		5,624		5,207	U
49	MULTI-DOMAIN INTELLIGENCE	A						20,095	U
	Information Security								
50	FAMILY OF BIOMETRICS	A		1,000					U
51	Information System Security Program-ISSP	A		3,600		4,596		987	U
52	Communications Security (COMSEC)	A		147,097		159,400		126,273	U

Department of the Army
FY 2022 President's Budget
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53	Defensive CYBER Operations	A		56,962		41,153		27,389	U
54	Insider Threat Program - Unit Activity Monito	A		756		1,760			U
55	Persistent Cyber Training Environment	A		3,000					U
56	SIO CAPABILITY	A						21,303	U
57	BIOMETRIC ENABLING CAPABILITY (BEC)							914	U
58	Items Less Than $5M (Info Security)	A				260			U
	Comm - Long Haul Communications								
59	Base Support Communications			56,052		30,761		9,209	U
	Comm - Base Communications								
60	Information Systems			208,721		162,973		219,026	U
61	Emergency Management Modernization Program	A		4,854				4,875	U
62	Home Station Mission Command Centers (HSMCC)	A		47,174		15,227			U
63	Joint Information Environment (JIE)	A				3,177			U
64	Installation Info Infrastructure Mod Program	A		341,314		343,724		223,001	U
	Elect Equip - Tact Int Rel Act (TIARA)								
67	JTT/CIBS-M	B		7,686		5,304		5,463	U
68	TERRESTRIAL LAYER SYSTEMS (TLS)					8,081		39,240	U
69	DRUG INTERDICTION PROGRAM (DIP) (TIARA)			5,063					U
70	DCGS-A-INTEL			205,219		197,595		92,613	U
71	JOINT TACTICAL GROUND STATION (JTAGS)-INTEL	A						8,088	U
72	TROJAN	B		20,965		19,359		30,828	U

Department of the Army
FY 2022 President's Budget
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Appropriation: 2035A Other Procurement, Army

Line No	Item Nomenclature	Ident Code	FY 2020 Actual* Quantity	FY 2020 Actual* Cost	FY 2021 Enacted** Quantity	FY 2021 Enacted** Cost	FY 2022 Request Quantity	FY 2022 Request Cost	Sec
73	MOD OF IN-SVC EQUIP (INTEL SPT)			61,103		127,508		39,039	U
74	BIOMETRIC TACTICAL COLLECTION DEVICES	A		1,800		13,336		11,097	U
	Elect Equip - Electronic Warfare (EW)								
75	Lightweight Counter Mortar Radar	A		5,400		5,332			U
76	EW Planning & Management Tools (EWPMT)	A		7,568		7,849		783	U
77	AIR VIGILANCE (AV)	A		8,953		8,160		13,486	U
78	Multi-Function Electronic Warfare (MFEW) Syst	A				8,669			U
79	FAMILY OF PERSISTENT SURVEILLANCE CAP.	A		31,493		42,043		14,414	U
80	COUNTERINTELLIGENCE/SECURITY COUNTERMEASURES			7,418		40,913		19,111	U
81	CI MODERNIZATION	A		121		300		421	U
	Elect Equip - Tactical Surv. (Tac Surv)								
82	Sentinel Mods			133,910		92,380		47,642	U
83	Night Vision Devices	A		85,202		867,823		1,092,341	U
84	Small Tactical Optical Rifle Mounted MLRF			22,623		7,715		21,103	U
85	Indirect Fire Protection Family Of Systems	A		29,127		61,069		6,153	U
86	FAMILY OF WEAPON SIGHTS (FWS)	A		81,541		86,389		184,145	U
87	ENHANCED PORTABLE INDUCTIVE ARTILLERY FUZE SE							2,371	U
88	Forward Looking Infrared (IFLIR)	A						11,929	U
89	COUNTER SMALL UNMANNED AERIAL SYSTEM (C-SUAS)	A						60,058	U
90	JOINT BATTLE COMMAND - PLATFORM (JBC-P)	A		282,114		243,850		263,661	U
91	JOINT EFFECTS TARGETING SYSTEM (JETS)			25,330		54,206		62,082	U

P-122BAS: FY 2022 President's Budget (Total Base Published Version), as of May 5, 2021 at 14:05:21

Department of the Army
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05 May 2021

Appropriation: 2035A Other Procurement, Army

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92	Mod Of In-Svc Equip (LLDR)	A		6,044					U
93	Computer Ballistics: LHMBC XM32	A		4,474		7,789		2,811	U
94	Mortar Fire Control System			28,538		17,472		17,236	U
95	Mortar Fire Control Systems Modifications			10,000		7,292		2,830	U
96	Counterfire Radars			16,416		71,404		31,694	U
	Elect Equip - Tactical C2 Systems								
97	Army Command Post Integrated Infrastructure (	A				23,000		49,410	U
98	Fire Support C2 Family	A		13,197		9,390		9,853	U
99	AIR & MSL Defense Planning & Control Sys			39,061		62,517		67,193	U
100	IAMD Battle Command System	A		29,629		198,587		301,872	U
101	Life Cycle Software Support (LCSS)			5,420		2,495		5,182	U
102	Network Management Initialization and Service	A		24,448		18,651		31,349	U
103	Maneuver Control System (MCS)	A		260					U
104	Global Combat Support System-Army (GCSS-A)	A		8,815		2,792		11,271	U
105	Integrated Personnel and Pay System-Army (IPP	A		14,100		9,071		16,077	U
106	Reconnaissance and Surveying Instrument Set	A		11,000		12,117			U
107	MOD of In-Svc Equipment (ENFIRE)	A		15,317		14,004		3,160	U
	Elect Equip - Automation								
108	Army Training Modernization			19,220		19,262		9,833	U
109	Automated Data Processing Equip			179,715		151,187		130,924	U
110	ACCESSIONS INFORMATION ENVIRONMENT (AIE)							44,635	U

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Department of the Army
FY 2022 President's Budget
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(Dollars in Thousands)

05 May 2021

Appropriation: 2035A Other Procurement, Army

Line No	Item Nomenclature	Ident Code	FY 2020 Actual* Quantity	FY 2020 Actual* Cost	FY 2021 Enacted** Quantity	FY 2021 Enacted** Cost	FY 2022 Request Quantity	FY 2022 Request Cost	Sec
111	General Fund Enterprise Business Systems Fam	A		15,002		4,448		1,452	U
112	High Perf Computing Mod Pgm (HPCMP)	A		72,610		88,405		69,943	U
113	Contract Writing System	A		6,000		2,459		16,957	U
114	CSS Communications	A		24,700		51,129		73,110	U
115	Reserve Component Automation Sys (RCAS)			27,879		14,848		12,905	U
	Elect Equip - Audio Visual Sys (A/V)								
116	Items Less Than $5M (Surveying Equipment)			5,000		4,995			U
	Elect Equip - Support								
117	BCT Emerging Technologies	A		19,312		8,491		13,835	U
999	Classified Programs			11,910		1,582		18,304	U
	Total Communications and Electronics Equipment			4,219,959		5,276,078		5,822,037	
	Budget Activity 03: Other Support Equipment								
	Chemical Defensive Equipment								
118	Family Of Non-Lethal Equipment (FNLE)	A		28,480		32,480			U
119	Base Defense Systems (BDS)	A		39,984		98,960		62,295	U
120	CBRN Defense	A		43,289		47,343		55,632	U
121	Smoke & Obscurant Family: SOF (Non AAO Item)			5,050		13,995			U
	Bridging Equipment								
122	Tactical Bridging			64,705		60,945		9,625	U
123	Tactical Bridge, Float-Ribbon			57,661		72,074		76,082	U
124	BRIDGE SUPPLEMENTAL SET	A		14,373		32,493		19,867	U

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(Dollars in Thousands)

05 May 2021

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125	Common Bridge Transporter (CBT) Recap	A		46,748		55,032		109,796	U
	Engineer (Non-Construction) Equipment								
126	Handheld Standoff Minefield Detection Sys-HST	B		7,570		5,570		5,628	U
127	Grnd Standoff Mine Detectn Sysm (GSTAMIDS)			40,680		2,497			U
128	HUSKY MOUNTED DETECTION SYSTEM (HMDS)	A		75,586		95,608		26,823	U
129	Robotic Combat Support System (RCSS)			5,300					U
130	EOD Robotics Systems Recapitalization	A		23,115		36,584			U
131	Robotics and Applique Systems			101,056		172,744		124,233	U
132	Render Safe Sets kits Outfits	A		102,684		145,313		84,000	U
133	Family of Boats and Motors	A		5,745		5,289			U
	Combat Service Support Equipment								
134	Heaters and ECU's	A		5,876		8,570		7,116	U
135	Soldier Enhancement							1,286	U
136	Personnel Recovery Support System (PRSS)	A		9,382		8,346		9,741	U
137	Ground Soldier System	A		122,400		137,481		150,244	U
138	Mobile Soldier Power	A		29,364		34,297		17,815	U
139	Force Provider	A		64,400		62,400		28,860	U
140	Field Feeding Equipment			15,973		2,279		2,321	U
141	Cargo Aerial Del & Personnel Parachute System			44,662		55,061		40,240	U
142	Family Of Engr Combat and Construction Sets	A		11,451		23,324		36,163	U
143	Items Less Than $5M (Eng Spt)	A		4,128		8,014			U

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05 May 2021

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Line No	Item Nomenclature	Ident Code	FY 2020 Actual* Quantity	FY 2020 Actual* Cost	FY 2021 Enacted** Quantity	FY 2021 Enacted** Cost	FY 2022 Request Quantity	FY 2022 Request Cost	Sec
	Petroleum Equipment								
144	QUALITY SURVEILLANCE EQUIPMENT	A						744	U
145	Distribution Systems, Petroleum & Water			84,527		76,722		72,296	U
	Medical Equipment								
146	Combat Support Medical			147,874		75,875		122,145	U
	Maintenance Equipment								
147	Mobile Maintenance Equipment Systems	A		140,053		168,106		14,756	U
148	Items Less Than $5.0M (Maint Eq)	A		5,608		5,570			U
	Construction Equipment								
149	Grader, Road Mtzd, Hvy, 6X4 (CCE)	A				5,406			U
150	Scrapers, Earthmoving	A		3,910		4,188			U
151	Loaders			380		7,711			U
152	Hydraulic Excavator	B		600		12,786			U
153	Tractor, Full Tracked	A		13,060		12,165			U
154	All Terrain Cranes	A		22,403		70,560		112,784	U
155	High Mobility Engineer Excavator (HMEE)	A		30,188		3,703			U
156	Const Equip ESP			38,560		9,582		8,694	U
157	Items Less Than $5.0M (Const Equip)	A		5,331					U
	Rail Float Containerization Equipment								
158	Army Watercraft Esp	A		42,232		40,910		44,409	U
159	Maneuver Support Vessel (MSV)	B		14,185		76,576		76,660	U

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Department of the Army
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160	Items Less Than $5.0M (Float/Rail)	A		6,920		1,844			U
	Generators								
161	Generators And Associated Equip	A		115,912		101,239		47,606	U
162	Tactical Electric Power Recapitalization	A		14,814		22,216		10,500	U
	Material Handling Equipment								
163	Family Of Forklifts	A		19,016		17,995		13,325	U
	Training Equipment								
164	Combat Training Centers Support			125,411		90,580		79,565	U
165	Training Devices, Nonsystem			215,453		161,814		174,644	U
166	Synthetic Training Environment (STE)			14,449		13,063		122,104	U
167	Aviation Combined Arms Tactical Trainer			4,840					U
168	Gaming Technology In Support of Army Training			13,463		1,950		11,642	U
	Test Measure and Dig Equipment (TMD)								
169	Calibration Sets Equipment			3,030		2,511			U
170	Integrated Family Of Test Equipment (IFTE)			81,058		77,214		42,934	U
171	Test Equipment Modernization (TEMOD)			10,732		14,941			U
172	Test Equipment Modernization (TEMOD)	A					399	24,304	U
	Other Support Equipment								
173	Rapid Equipping Soldier Support Equipment	A		27,877		17,129			U
174	Physical Security Systems (OPA3)	A		88,974		89,251		86,930	U
175	Base Level Common Equipment			15,340		15,650		27,823	U

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176	Modification Of In-Svc Equipment (OPA-3)			106,812		66,485		32,392	U
177	BUILDING, PRE-FAB, RELOCATABLE	A		114,559		31,845		32,227	U
178	Special Equipment For User Testing			9,821					U
179	Special Equipment for Test and Evaluation	B				39,436		76,917	U
	Total Other Support Equipment			2,507,054		2,551,722		2,103,168	
	Budget Activity 04: Spare and Repair Parts								
	OPA2								
180	INITIAL SPARES - C&E			9,757		9,950		9,272	U
	Total Spare and Repair Parts			9,757		9,950		9,272	
	Total Other Procurement, Army			8,551,633		9,527,935		8,873,558	

P-122BAS: FY 2022 President's Budget (Total Base Published Version), as of May 5, 2021 at 14:05:21

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

Appropriation 2035A: Other Procurement, Army

Line #	BA	BSA	Line Item Number	Line Item Title	Page
1	01	10	0254DA0100	Tactical Trailers/Dolly Sets	Volume 1 - 1
2	01	10	0930D01001	Semitrailers, Flatbed:	Volume 1 - 3
3	01	10	1400D02001	Semitrailers, tankers	Volume 1 - 16
4	01	10	3446D15400	HI MOB MULTI-PURP WHLD VEH (HMMWV)	Volume 1 - 24
5	01	10	3484D15501	Ground Mobility Vehicles (GMV)	Volume 1 - 35
6	01	10	3636D10000	ARNG HMMWV Modernization Program	Volume 1 - 44
7	01	10	5600D15603	JOINT LIGHT TACTICAL VEHICLE	Volume 1 - 46
8	01	10	5731D15610	JOINT LIGHT TACTICAL VEHICLE FAMILY OF VEHICLES	Volume 1 - 48
9	01	10	5862D16001	TRUCK, DUMP, 20T (CCE)	Volume 1 - 64
10	01	10	6866D15500	Family Of Medium Tactical Veh (FMTV)	Volume 1 - 72
11	01	10	6880D15620	Family of Cold Weather All-Terrain Vehicle (CATV)	Volume 1 - 85
12	01	10	7000D15800	Firetrucks & Associated Firefighting Equip	Volume 1 - 93
13	01	10	8309DA0500	Family Of Heavy Tactical Vehicles (FHTV)	Volume 1 - 102
14	01	10	8331D16506	PLS ESP	Volume 1 - 118
15	01	10	8948DV0021	Hvy Expanded Mobile Tactical Truck Ext Serv	Volume 1 - 127
16	01	10	8953DV0230	HMMWV Recapitalization Program	Volume 1 - 129

Appropriation 2035A: Other Procurement, Army

Line #	BA	BSA	Line Item Number	Line Item Title	Page
17	01	10	8980D04003	Tactical Wheeled Vehicle Protection Kits	Volume 1 - 131
18	01	10	8992DA0924	Modification Of In Svc Equip	Volume 1 - 143
19	01	20	0300D22100	Heavy Armored Vehicle	Volume 1 - 160
20	01	20	0358D23000	Passenger Carrying Vehicles	Volume 1 - 161
21	01	20	2450D30000	NonTactical Vehicles, Other	Volume 1 - 163

Appropriation 2035A: Other Procurement, Army

Line #	BA	BSA	Line Item Number	Line Item Title	Page
22	02	12	1981B00010	Signal Modernization Program	Volume 2 - 1
23	02	12	1982B07100	Tactical Network Technology Mod In Svc	Volume 2 - 14
24	02	12	1983BW7200	SITUATION INFORMATION TRANSPORT	Volume 2 - 20
25	02	12	2161B47200	Disaster Incident Response Comms Terminal (DIRECT)	Volume 2 - 21
26	02	12	2930BB5777	JCSE Equipment (USRDECOM)	Volume 2 - 23
27	02	18	2936B09800	Spectrum METSAT	Volume 2 - 25
28	02	18	2937B09700	Spectrum Portal	Volume 2 - 26
29	02	18	2948BB8500	Defense Enterprise Wideband Satcom Systems	Volume 2 - 27

Appropriation 2035A: Other Procurement, Army

Line #	BA	BSA	Line Item Number	Line Item Title	Page
30	02	18	2956B85800	Transportable Tactical Command Communications (T2C	Volume 2 - 43
31	02	18	9810BA9350	SHF Term	Volume 2 - 54
32	02	18	9897K49000	Assured Positioning, Navigation and Timing	Volume 2 - 64
33	02	18	9910BC4002	SMART-T (SPACE)	Volume 2 - 82
34	02	18	9915BC4120	Global Brdcst Svc - GBS	Volume 2 - 88
35	02	18	9922B08400	ENROUTE MISSION COMMAND (EMC)	Volume 2 - 90
36	02	18	9923B09900	Spectrum Microwave	Volume 2 - 92
37	02	24	8151B70000	COE Tactical Server Infrastructure (TSI)	Volume 2 - 93
38	02	32	6458B95004	Handheld Manpack Small Form Fit (HMS)	Volume 2 - 100
39	02	32	6948B22603	Radio Terminal Set, MIDS LVT(2)	Volume 2 - 119
40	02	32	7264B24400	ARMY LINK 16 SYSTEMS	Volume 2 - 124
41	02	32	8558B54020	Spider Family of Networked Munitions Incr	Volume 2 - 131
42	02	32	8563B58601	Unified Command Suite	Volume 2 - 133
43	02	32	9164BU8100	COTS Communications Equipment	Volume 2 - 139
44	02	32	9885MA8000	Family of Med Comm for Combat Casualty Care	Volume 2 - 177
45	02	32	9887B88810	Army Communications & Electronics	Volume 2 - 186
47	02	36	0250BK5284	CI AUTOMATION ARCHITECTURE-INTEL	Volume 2 - 189
48	02	36	0256K61010	Defense Military Deception Initiative	Volume 2 - 194

Appropriation 2035A: Other Procurement, Army

Line #	BA	BSA	Line Item Number	Line Item Title	Page
49	02	36	0287BZ6100	MULTI-DOMAIN INTELLIGENCE	Volume 2 - 197
50	02	64	0121BA1300	FAMILY OF BIOMETRICS	Volume 2 - 201
51	02	64	0122TA0600	Information System Security Program-ISSP	Volume 2 - 202
52	02	64	0125B96000	Communications Security (COMSEC)	Volume 2 - 204
53	02	64	0128B63000	Defensive CYBER Operations	Volume 2 - 215
54	02	64	0131B89000	Insider Threat Program - Unit Activity Monitoring	Volume 2 - 222
55	02	64	0132B65010	Persistent Cyber Training Environment	Volume 2 - 224
56	02	64	0150B68000	SIO CAPABILITY	Volume 2 - 225
57	02	64	0152B13000	BIOMETRIC ENABLING CAPABILITY (BEC)	Volume 2 - 228
58	02	64	9091B85010	Items Less Than $5M (Info Security)	Volume 2 - 229
59	02	72	9716BU4160	Base Support Communications	Volume 2 - 230
60	02	73	9200BB8650	Information Systems	Volume 2 - 236
61	02	73	9666BU8000	Emergency Management Modernization Program	Volume 2 - 251
62	02	73	9674B33000	Home Station Mission Command Centers (HSMCC)	Volume 2 - 253
63	02	73	9683B80000	Joint Information Environment (JIE)	Volume 2 - 255
64	02	73	9700BU0500	Installation Info Infrastructure Mod Program	Volume 2 - 256
67	02	80	9522V29600	JTT/CIBS-M	Volume 2 - 278
68	02	80	9546B97600	TERRESTRIAL LAYER SYSTEMS (TLS)	Volume 2 - 282

Appropriation 2035A: Other Procurement, Army

Line #	BA	BSA	Line Item Number	Line Item Title	Page
69	02	80	9654BU4050	DRUG INTERDICTION PROGRAM (DIP) (TIARA)	Volume 2 - 289
70	02	80	9690BZ7316	DCGS-A-INTEL	Volume 2 - 290
71	02	80	9692BZ8401	JOINT TACTICAL GROUND STATION (JTAGS)-INTEL	Volume 2 - 297
72	02	80	9704BA0326	TROJAN	Volume 2 - 301
73	02	80	9912BZ9750	MOD OF IN-SVC EQUIP (INTEL SPT)	Volume 2 - 310
74	02	80	9988BK5300	BIOMETRIC TACTICAL COLLECTION DEVICES	Volume 2 - 317
75	02	83	8387B05201	Lightweight Counter Mortar Radar	Volume 2 - 320
76	02	83	8488K00002	EW Planning & Management Tools (EWPMT)	Volume 2 - 322
77	02	83	8489W60001	AIR VIGILANCE (AV)	Volume 2 - 323
78	02	83	8491B05000	Multi-Function Electronic Warfare (MFEW) Systems	Volume 2 - 328
79	02	83	9926BL5287	FAMILY OF PERSISTENT SURVEILLANCE CAP	Volume 2 - 329
80	02	83	9996BL5283	COUNTERINTELLIGENCE/SECURITY COUNTERMEASURES	Volume 2 - 336
81	02	83	9997BL5285	CI MODERNIZATION	Volume 2 - 339
82	02	86	0125WK5057	Sentinel Mods	Volume 2 - 340
83	02	86	0140KA3500	Night Vision Devices	Volume 2 - 355
84	02	86	0155K35110	Small Tactical Optical Rifle Mounted MLRF	Volume 2 - 381
85	02	86	0173BZ0501	Indirect Fire Protection Family Of Systems	Volume 2 - 390
86	02	86	0177K22001	FAMILY OF WEAPON SIGHTS (FWS)	Volume 2 - 397

Appropriation 2035A: Other Procurement, Army

Line #	BA	BSA	Line Item Number	Line Item Title	Page
87	02	86	0187AD3260	ENHANCED PORTABLE INDUCTIVE ARTILLERY FUZE SETTER	Volume 2 - 417
88	02	86	0214KA4510	Forward Looking Infrared (IFLIR)	Volume 2 - 419
89	02	86	0219AD0500	COUNTER SMALL UNMANNED AERIAL SYSTEM (C-SUAS)	Volume 2 - 423
90	02	86	0245W61990	JOINT BATTLE COMMAND - PLATFORM (JBC-P)	Volume 2 - 427
91	02	86	0254K32101	JOINT EFFECTS TARGETING SYSTEM (JETS)	Volume 2 - 438
92	02	86	0255KA3100	Mod Of In-Svc Equip (LLDR)	Volume 2 - 447
93	02	86	5726K99200	Computer Ballistics: LHMBC XM32	Volume 2 - 449
94	02	86	7500K99300	Mortar Fire Control System	Volume 2 - 451
95	02	86	7563AD9300	Mortar Fire Control Systems Modifications	Volume 2 - 459
96	02	86	8386BA5500	Counterfire Radars	Volume 2 - 460
97	02	89	9042B29810	Army Command Post Integrated Infrastructure (CPI2)	Volume 2 - 468
98	02	89	9060B28501	Fire Support C2 Family	Volume 2 - 478
99	02	89	9266AD5070	AIR & MSL Defense Planning & Control Sys	Volume 2 - 490
100	02	89	9280BZ5075	IAMD Battle Command System	Volume 2 - 495
101	02	89	9442BD3955	Life Cycle Software Support (LCSS)	Volume 2 - 505
102	02	89	9705BA9301	Network Management Initialization and Services	Volume 2 - 509
103	02	89	9742BA9320	Maneuver Control System (MCS)	Volume 2 - 518
104	02	89	9875W30001	Global Combat Support System-Army (GCSS-A)	Volume 2 - 519

Appropriation 2035A: Other Procurement, Army

Line #	BA	BSA	Line Item Number	Line Item Title	Page
105	02	89	9921B66701	Integrated Personnel and Pay System-Army (IPPS-A)	Volume 2 - 527
106	02	89	9966BZ9966	Reconnaissance and Surveying Instrument Set	Volume 2 - 533
107	02	89	9971B99901	MOD of In-Svc Equipment (ENFIRE)	Volume 2 - 535
108	02	92	3001BE4169	Army Training Modernization	Volume 2 - 537
109	02	92	3002BD3000	Automated Data Processing Equip	Volume 2 - 546
110	02	92	3003B45000	ACCESSIONS INFORMATION ENVIRONMENT (AIE)	Volume 2 - 578
111	02	92	3004B55500	General Fund Enterprise Business Systems Fam	Volume 2 - 584
112	02	92	3005B66501	High Perf Computing Mod Pgm (HPCMP)	Volume 2 - 586
113	02	92	3009B66001	Contract Writing System	Volume 2 - 592
114	02	92	3051BD3501	CSS Communications	Volume 2 - 596
115	02	92	9956BE4167	Reserve Component Automation Sys (RCAS)	Volume 2 - 603
116	02	95	9998BL5300	Items Less Than $5M (Surveying Equipment)	Volume 2 - 609
117	02	98	2723B88801	BCT Emerging Technologies	Volume 2 - 611

Appropriation 2035A: Other Procurement, Army

Line #	BA	BSA	Line Item Number	Line Item Title	Page
118	03	10	2224M11205	Family Of Non-Lethal Equipment (FNLE)	Volume 3 - 1
119	03	10	2300M90101	Base Defense Systems (BDS)	Volume 3 - 3
120	03	10	4516M01001	CBRN Defense	Volume 3 - 18
121	03	10	6230MX0600	Smoke & Obscurant Family: SOF (Non AAO Item)	Volume 3 - 42
122	03	15	2831MX0100	Tactical Bridging	Volume 3 - 43
123	03	15	3542MA8890	Tactical Bridge, Float-Ribbon	Volume 3 - 50
124	03	15	3758G06520	BRIDGE SUPPLEMENTAL SET	Volume 3 - 58
125	03	15	3974G07000	Common Bridge Transporter (CBT) Recap	Volume 3 - 66
126	03	20	2876R68200	Handheld Standoff Minefield Detection Sys-HSTAMIDS	Volume 3 - 74
127	03	20	2881R68400	Grnd Standoff Mine Detectn Sysm (GSTAMIDS)	Volume 3 - 79
128	03	20	2889R64001	HUSKY MOUNTED DETECTION SYSTEM (HMDS)	Volume 3 - 81
129	03	20	4865M80400	Robotic Combat Support System (RCSS)	Volume 3 - 90
130	03	20	4867W12001	EOD Robotics Systems Recapitalization	Volume 3 - 91
131	03	20	4868W12002	Robotics and Applique Systems	Volume 3 - 93
132	03	20	5913R63610	Render Safe Sets kits Outfits	Volume 3 - 125
133	03	20	8500R12001	Family of Boats and Motors	Volume 3 - 133

Appropriation 2035A: Other Procurement, Army

Line #	BA	BSA	Line Item Number	Line Item Title	Page
134	03	25	0100MF9000	Heaters and ECU's	Volume 3 - 135
135	03	25	8796MA6800	Soldier Enhancement	Volume 3 - 141
136	03	25	8822G01101	Personnel Recovery Support System (PRSS)	Volume 3 - 142
137	03	25	8825R80501	Ground Soldier System	Volume 3 - 147
138	03	25	8827R80800	Mobile Soldier Power	Volume 3 - 154
139	03	25	8860M80200	Force Provider	Volume 3 - 166
140	03	25	9120M65800	Field Feeding Equipment	Volume 3 - 175
141	03	25	9140MA7804	Cargo Aerial Del & Personnel Parachute Systems	Volume 3 - 177
142	03	25	9462R70001	Family Of Engr Combat and Construction Sets	Volume 3 - 185
143	03	25	9530ML5301	Items Less Than $5M (Eng Spt)	Volume 3 - 222
144	03	30	0725MB6400	QUALITY SURVEILLANCE EQUIPMENT	Volume 3 - 224
145	03	30	4700MA6000	Distribution Systems, Petroleum & Water	Volume 3 - 226
146	03	40	7500MN1000	Combat Support Medical	Volume 3 - 259
147	03	45	0639G05301	Mobile Maintenance Equipment Systems	Volume 3 - 270
148	03	45	9562ML5345	Items Less Than $5.0M (Maint Eq)	Volume 3 - 295
149	03	50	0375R03800	Grader, Road Mtzd, Hvy, 6X4 (CCE)	Volume 3 - 297
150	03	50	0822RA0100	Scrapers, Earthmoving	Volume 3 - 299
151	03	50	4100R04500	Loaders	Volume 3 - 301

Appropriation 2035A: Other Procurement, Army

Line #	BA	BSA	Line Item Number	Line Item Title	Page
152	03	50	4428X01500	Hydraulic Excavator	Volume 3 - 303
153	03	50	4700M05800	Tractor, Full Tracked	Volume 3 - 305
154	03	50	4734R06701	All Terrain Cranes	Volume 3 - 307
155	03	50	7495R05901	High Mobility Engineer Excavator (HMEE)	Volume 3 - 313
156	03	50	9120M05500	Const Equip ESP	Volume 3 - 315
157	03	50	9462ML5350	Items Less Than $5.0M (Const Equip)	Volume 3 - 321
158	03	55	3569M11101	Army Watercraft Esp	Volume 3 - 323
159	03	55	8211R01001	Maneuver Support Vessel (MSV)	Volume 3 - 332
160	03	55	9552ML5355	Items Less Than $5.0M (Float/Rail)	Volume 3 - 341
161	03	60	0426MA9800	Generators And Associated Equip	Volume 3 - 343
162	03	60	9012R42501	Tactical Electric Power Recapitalization	Volume 3 - 372
163	03	65	5558G41001	Family Of Forklifts	Volume 3 - 381
164	03	70	1780MA6600	Combat Training Centers Support	Volume 3 - 390
165	03	70	2062NA0100	Training Devices, Nonsystem	Volume 3 - 402
166	03	70	2079NA2000	Synthetic Training Environment (STE)	Volume 3 - 444
167	03	70	6800NA0173	Aviation Combined Arms Tactical Trainer	Volume 3 - 465
168	03	70	6860NA0176	Gaming Technology In Support of Army Training	Volume 3 - 467
169	03	80	0100N10000	Calibration Sets Equipment	Volume 3 - 473

Appropriation 2035A: Other Procurement, Army

Line #	BA	BSA	Line Item Number	Line Item Title	Page
170	03	80	0200MB4000	Integrated Family Of Test Equipment (IFTE)	Volume 3 - 475
171	03	80	0600N11000	Test Equipment Modernization (TEMOD)	Volume 3 - 491
172	03	80	0605G02510	Test Equipment Modernization (TEMOD)	Volume 3 - 493
173	03	90	0017M80101	Rapid Equipping Soldier Support Equipment	Volume 3 - 510
174	03	90	0050MA0780	Physical Security Systems (OPA3)	Volume 3 - 512
175	03	90	0312MB7000	Base Level Common Equipment	Volume 3 - 525
176	03	90	1110MA4500	Modification Of In-Svc Equipment (OPA-3)	Volume 3 - 529
177	03	90	1500MA9160	BUILDING, PRE-FAB, RELOCATABLE	Volume 3 - 560
178	03	90	1572MA6700	Special Equipment For User Testing	Volume 3 - 568
179	03	90	1573MA6820	Special Equipment for Test and Evaluation	Volume 3 - 569

Appropriation 2035A: Other Procurement, Army

Line #	BA	BSA	Line Item Number	Line Item Title	Page
180	04	20	0200BS9100	INITIAL SPARES - C&E	Volume 3 - 581

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

Line Item Title	Line Item Number	Line #	BA	BSA	Page
ACCESSIONS INFORMATION ENVIRONMENT (AIE)	3003B45000	110	02	92	Volume 2 - 578
AIR & MSL Defense Planning & Control Sys	9266AD5070	99	02	89	Volume 2 - 490
AIR VIGILANCE (AV)	8489W60001	77	02	83	Volume 2 - 323
ARMY LINK 16 SYSTEMS	7264B24400	40	02	32	Volume 2 - 124
ARNG HMMWV Modernization Program	3636D10000	6	01	10	Volume 1 - 44
All Terrain Cranes	4734R06701	154	03	50	Volume 3 - 307
Army Command Post Integrated Infrastructure (CPI2)	9042B29810	97	02	89	Volume 2 - 468
Army Communications & Electronics	9887B88810	45	02	32	Volume 2 - 186
Army Training Modernization	3001BE4169	108	02	92	Volume 2 - 537
Army Watercraft Esp	3569M11101	158	03	55	Volume 3 - 323
Assured Positioning, Navigation and Timing	9897K49000	32	02	18	Volume 2 - 64
Automated Data Processing Equip	3002BD3000	109	02	92	Volume 2 - 546
Aviation Combined Arms Tactical Trainer	6800NA0173	167	03	70	Volume 3 - 465
BCT Emerging Technologies	2723B88801	117	02	98	Volume 2 - 611
BIOMETRIC ENABLING CAPABILITY (BEC)	0152B13000	57	02	64	Volume 2 - 228
BIOMETRIC TACTICAL COLLECTION DEVICES	9988BK5300	74	02	80	Volume 2 - 317
BRIDGE SUPPLEMENTAL SET	3758G06520	124	03	15	Volume 3 - 58

Line Item Title	Line Item Number	Line #	BA	BSA	Page
BUILDING, PRE-FAB, RELOCATABLE	1500MA9160	177	03	90	Volume 3 - 560
Base Defense Systems (BDS)	2300M90101	119	03	10	Volume 3 - 3
Base Level Common Equipment	0312MB7000	175	03	90	Volume 3 - 525
Base Support Communications	9716BU4160	59	02	72	Volume 2 - 230
CBRN Defense	4516M01001	120	03	10	Volume 3 - 18
CI AUTOMATION ARCHITECTURE-INTEL	0250BK5284	47	02	36	Volume 2 - 189
CI MODERNIZATION	9997BL5285	81	02	83	Volume 2 - 339
COE Tactical Server Infrastructure (TSI)	8151B70000	37	02	24	Volume 2 - 93
COTS Communications Equipment	9164BU8100	43	02	32	Volume 2 - 139
COUNTER SMALL UNMANNED AERIAL SYSTEM (C-SUAS)	0219AD0500	89	02	86	Volume 2 - 423
COUNTERINTELLIGENCE/SECURITY COUNTERMEASURES	9996BL5283	80	02	83	Volume 2 - 336
CSS Communications	3051BD3501	114	02	92	Volume 2 - 596
Calibration Sets Equipment	0100N10000	169	03	80	Volume 3 - 473
Cargo Aerial Del & Personnel Parachute Systems	9140MA7804	141	03	25	Volume 3 - 177
Combat Support Medical	7500MN1000	146	03	40	Volume 3 - 259
Combat Training Centers Support	1780MA6600	164	03	70	Volume 3 - 390
Common Bridge Transporter (CBT) Recap	3974G07000	125	03	15	Volume 3 - 66
Communications Security (COMSEC)	0125B96000	52	02	64	Volume 2 - 204
Computer Ballistics: LHMBC XM32	5726K99200	93	02	86	Volume 2 - 449
Const Equip ESP	9120M05500	156	03	50	Volume 3 - 315

Line Item Title	Line Item Number	Line #	BA	BSA	Page
Contract Writing System	3009B66001	113	02	92	Volume 2 - 592
Counterfire Radars	8386BA5500	96	02	86	Volume 2 - 460
DCGS-A-INTEL	9690BZ7316	70	02	80	Volume 2 - 290
DRUG INTERDICTION PROGRAM (DIP) (TIARA)	9654BU4050	69	02	80	Volume 2 - 289
Defense Enterprise Wideband Satcom Systems	2948BB8500	29	02	18	Volume 2 - 27
Defense Military Deception Initiative	0256K61010	48	02	36	Volume 2 - 194
Defensive CYBER Operations	0128B63000	53	02	64	Volume 2 - 215
Disaster Incident Response Comms Terminal (DIRECT)	2161B47200	25	02	12	Volume 2 - 21
Distribution Systems, Petroleum & Water	4700MA6000	145	03	30	Volume 3 - 226
ENHANCED PORTABLE INDUCTIVE ARTILLERY FUZE SETTER	0187AD3260	87	02	86	Volume 2 - 417
ENROUTE MISSION COMMAND (EMC)	9922B08400	35	02	18	Volume 2 - 90
EOD Robotics Systems Recapitalization	4867W12001	130	03	20	Volume 3 - 91
EW Planning & Management Tools (EWPMT)	8488K00002	76	02	83	Volume 2 - 322
Emergency Management Modernization Program	9666BU8000	61	02	73	Volume 2 - 251
FAMILY OF BIOMETRICS	0121BA1300	50	02	64	Volume 2 - 201
FAMILY OF PERSISTENT SURVEILLANCE CAP.	9926BL5287	79	02	83	Volume 2 - 329
FAMILY OF WEAPON SIGHTS (FWS)	0177K22001	86	02	86	Volume 2 - 397
Family Of Engr Combat and Construction Sets	9462R70001	142	03	25	Volume 3 - 185
Family Of Forklifts	5558G41001	163	03	65	Volume 3 - 381
Family Of Heavy Tactical Vehicles (FHTV)	8309DA0500	13	01	10	Volume 1 - 102

Line Item Title	Line Item Number	Line #	BA	BSA	Page
Family Of Medium Tactical Veh (FMTV)	6866D15500	10	01	10	Volume 1 - 72
Family Of Non-Lethal Equipment (FNLE)	2224M11205	118	03	10	Volume 3 - 1
Family of Boats and Motors	8500R12001	133	03	20	Volume 3 - 133
Family of Cold Weather All-Terrain Vehicle (CATV)	6880D15620	11	01	10	Volume 1 - 85
Family of Med Comm for Combat Casualty Care	9885MA8000	44	02	32	Volume 2 - 177
Field Feeding Equipment	9120M65800	140	03	25	Volume 3 - 175
Fire Support C2 Family	9060B28501	98	02	89	Volume 2 - 478
Firetrucks & Associated Firefighting Equip	7000D15800	12	01	10	Volume 1 - 93
Force Provider	8860M80200	139	03	25	Volume 3 - 166
Forward Looking Infrared (IFLIR)	0214KA4510	88	02	86	Volume 2 - 419
Gaming Technology In Support of Army Training	6860NA0176	168	03	70	Volume 3 - 467
General Fund Enterprise Business Systems Fam	3004B55500	111	02	92	Volume 2 - 584
Generators And Associated Equip	0426MA9800	161	03	60	Volume 3 - 343
Global Brdcst Svc - GBS	9915BC4120	34	02	18	Volume 2 - 88
Global Combat Support System-Army (GCSS-A)	9875W30001	104	02	89	Volume 2 - 519
Grader, Road Mtzd, Hvy, 6X4 (CCE)	0375R03800	149	03	50	Volume 3 - 297
Grnd Standoff Mine Detectn Sysm (GSTAMIDS)	2881R68400	127	03	20	Volume 3 - 79
Ground Mobility Vehicles (GMV)	3484D15501	5	01	10	Volume 1 - 35
Ground Soldier System	8825R80501	137	03	25	Volume 3 - 147
HI MOB MULTI-PURP WHLD VEH (HMMWV)	3446D15400	4	01	10	Volume 1 - 24

Line Item Title	Line Item Number	Line #	BA	BSA	Page
HMMWV Recapitalization Program	8953DV0230	16	01	10	Volume 1 - 129
HUSKY MOUNTED DETECTION SYSTEM (HMDS)	2889R64001	128	03	20	Volume 3 - 81
Handheld Manpack Small Form Fit (HMS)	6458B95004	38	02	32	Volume 2 - 100
Handheld Standoff Minefield Detection Sys-HSTAMIDS	2876R68200	126	03	20	Volume 3 - 74
Heaters and ECU's	0100MF9000	134	03	25	Volume 3 - 135
Heavy Armored Vehicle	0300D22100	19	01	20	Volume 1 - 160
High Mobility Engineer Excavator (HMEE)	7495R05901	155	03	50	Volume 3 - 313
High Perf Computing Mod Pgm (HPCMP)	3005B66501	112	02	92	Volume 2 - 586
Home Station Mission Command Centers (HSMCC)	9674B33000	62	02	73	Volume 2 - 253
Hvy Expanded Mobile Tactical Truck Ext Serv	8948DV0021	15	01	10	Volume 1 - 127
Hydraulic Excavator	4428X01500	152	03	50	Volume 3 - 303
IAMD Battle Command System	9280BZ5075	100	02	89	Volume 2 - 495
INITIAL SPARES - C&E	0200BS9100	180	04	20	Volume 3 - 581
Indirect Fire Protection Family Of Systems	0173BZ0501	85	02	86	Volume 2 - 390
Information System Security Program-ISSP	0122TA0600	51	02	64	Volume 2 - 202
Information Systems	9200BB8650	60	02	73	Volume 2 - 236
Insider Threat Program - Unit Activity Monitoring	0131B89000	54	02	64	Volume 2 - 222
Installation Info Infrastructure Mod Program	9700BU0500	64	02	73	Volume 2 - 256
Integrated Family Of Test Equipment (IFTE)	0200MB4000	170	03	80	Volume 3 - 475
Integrated Personnel and Pay System-Army (IPPS-A)	9921B66701	105	02	89	Volume 2 - 527

Line Item Title	Line Item Number	Line #	BA	BSA	Page
Items Less Than $5.0M (Const Equip)	9462ML5350	157	03	50	Volume 3 - 321
Items Less Than $5.0M (Float/Rail)	9552ML5355	160	03	55	Volume 3 - 341
Items Less Than $5.0M (Maint Eq)	9562ML5345	148	03	45	Volume 3 - 295
Items Less Than $5M (Eng Spt)	9530ML5301	143	03	25	Volume 3 - 222
Items Less Than $5M (Info Security)	9091B85010	58	02	64	Volume 2 - 229
Items Less Than $5M (Surveying Equipment)	9998BL5300	116	02	95	Volume 2 - 609
JCSE Equipment (USRDECOM)	2930BB5777	26	02	12	Volume 2 - 23
JOINT BATTLE COMMAND - PLATFORM (JBC-P)	0245W61990	90	02	86	Volume 2 - 427
JOINT EFFECTS TARGETING SYSTEM (JETS)	0254K32101	91	02	86	Volume 2 - 438
JOINT LIGHT TACTICAL VEHICLE	5600D15603	7	01	10	Volume 1 - 46
JOINT LIGHT TACTICAL VEHICLE FAMILY OF VEHICLES	5731D15610	8	01	10	Volume 1 - 48
JOINT TACTICAL GROUND STATION (JTAGS)-INTEL	9692BZ8401	71	02	80	Volume 2 - 297
JTT/CIBS-M	9522V29600	67	02	80	Volume 2 - 278
Joint Information Environment (JIE)	9683B80000	63	02	73	Volume 2 - 255
Life Cycle Software Support (LCSS)	9442BD3955	101	02	89	Volume 2 - 505
Lightweight Counter Mortar Radar	8387B05201	75	02	83	Volume 2 - 320
Loaders	4100R04500	151	03	50	Volume 3 - 301
MOD OF IN-SVC EQUIP (INTEL SPT)	9912BZ9750	73	02	80	Volume 2 - 310
MOD of In-Svc Equipment (ENFIRE)	9971B99901	107	02	89	Volume 2 - 535
MULTI-DOMAIN INTELLIGENCE	0287BZ6100	49	02	36	Volume 2 - 197

Line Item Title	Line Item Number	Line #	BA	BSA	Page
Maneuver Control System (MCS)	9742BA9320	103	02	89	Volume 2 - 518
Maneuver Support Vessel (MSV)	8211R01001	159	03	55	Volume 3 - 332
Mobile Maintenance Equipment Systems	0639G05301	147	03	45	Volume 3 - 270
Mobile Soldier Power	8827R80800	138	03	25	Volume 3 - 154
Mod Of In-Svc Equip (LLDR)	0255KA3100	92	02	86	Volume 2 - 447
Modification Of In Svc Equip	8992DA0924	18	01	10	Volume 1 - 143
Modification Of In-Svc Equipment (OPA-3)	1110MA4500	176	03	90	Volume 3 - 529
Mortar Fire Control System	7500K99300	94	02	86	Volume 2 - 451
Mortar Fire Control Systems Modifications	7563AD9300	95	02	86	Volume 2 - 459
Multi-Function Electronic Warfare (MFEW) Systems	8491B05000	78	02	83	Volume 2 - 328
Network Management Initialization and Services	9705BA9301	102	02	89	Volume 2 - 509
Night Vision Devices	0140KA3500	83	02	86	Volume 2 - 355
NonTactical Vehicles, Other	2450D30000	21	01	20	Volume 1 - 163
PLS ESP	8331D16506	14	01	10	Volume 1 - 118
Passenger Carrying Vehicles	0358D23000	20	01	20	Volume 1 - 161
Persistent Cyber Training Environment	0132B65010	55	02	64	Volume 2 - 224
Personnel Recovery Support System (PRSS)	8822G01101	136	03	25	Volume 3 - 142
Physical Security Systems (OPA3)	0050MA0780	174	03	90	Volume 3 - 512
QUALITY SURVEILLANCE EQUIPMENT	0725MB6400	144	03	30	Volume 3 - 224
Radio Terminal Set, MIDS LVT(2)	6948B22603	39	02	32	Volume 2 - 119

Line Item Title	Line Item Number	Line #	BA	BSA	Page
Rapid Equipping Soldier Support Equipment	0017M80101	173	03	90	Volume 3 - 510
Reconnaissance and Surveying Instrument Set	9966BZ9966	106	02	89	Volume 2 - 533
Render Safe Sets kits Outfits	5913R63610	132	03	20	Volume 3 - 125
Reserve Component Automation Sys (RCAS)	9956BE4167	115	02	92	Volume 2 - 603
Robotic Combat Support System (RCSS)	4865M80400	129	03	20	Volume 3 - 90
Robotics and Applique Systems	4868W12002	131	03	20	Volume 3 - 93
SHF Term	9810BA9350	31	02	18	Volume 2 - 54
SIO CAPABILITY	0150B68000	56	02	64	Volume 2 - 225
SITUATION INFORMATION TRANSPORT	1983BW7200	24	02	12	Volume 2 - 20
SMART-T (SPACE)	9910BC4002	33	02	18	Volume 2 - 82
Scrapers, Earthmoving	0822RA0100	150	03	50	Volume 3 - 299
Semitrailers, Flatbed:	0930D01001	2	01	10	Volume 1 - 3
Semitrailers, tankers	1400D02001	3	01	10	Volume 1 - 16
Sentinel Mods	0125WK5057	82	02	86	Volume 2 - 340
Signal Modernization Program	1981B00010	22	02	12	Volume 2 - 1
Small Tactical Optical Rifle Mounted MLRF	0155K35110	84	02	86	Volume 2 - 381
Smoke & Obscurant Family: SOF (Non AAO Item)	6230MX0600	121	03	10	Volume 3 - 42
Soldier Enhancement	8796MA6800	135	03	25	Volume 3 - 141
Special Equipment For User Testing	1572MA6700	178	03	90	Volume 3 - 568
Special Equipment for Test and Evaluation	1573MA6820	179	03	90	Volume 3 - 569

Line Item Title	Line Item Number	Line #	BA	BSA	Page
Spectrum METSAT	2936B09800	27	02	18	Volume 2 - 25
Spectrum Microwave	9923B09900	36	02	18	Volume 2 - 92
Spectrum Portal	2937B09700	28	02	18	Volume 2 - 26
Spider Family of Networked Munitions Incr	8558B54020	41	02	32	Volume 2 - 131
Synthetic Training Environment (STE)	2079NA2000	166	03	70	Volume 3 - 444
TERRESTRIAL LAYER SYSTEMS (TLS)	9546B97600	68	02	80	Volume 2 - 282
TROJAN	9704BA0326	72	02	80	Volume 2 - 301
TRUCK, DUMP, 20T (CCE)	5862D16001	9	01	10	Volume 1 - 64
Tactical Bridge, Float-Ribbon	3542MA8890	123	03	15	Volume 3 - 50
Tactical Bridging	2831MX0100	122	03	15	Volume 3 - 43
Tactical Electric Power Recapitalization	9012R42501	162	03	60	Volume 3 - 372
Tactical Network Technology Mod In Svc	1982B07100	23	02	12	Volume 2 - 14
Tactical Trailers/Dolly Sets	0254DA0100	1	01	10	Volume 1 - 1
Tactical Wheeled Vehicle Protection Kits	8980D04003	17	01	10	Volume 1 - 131
Test Equipment Modernization (TEMOD)	0600N11000	171	03	80	Volume 3 - 491
Test Equipment Modernization (TEMOD)	0605G02510	172	03	80	Volume 3 - 493
Tractor, Full Tracked	4700M05800	153	03	50	Volume 3 - 305
Training Devices, Nonsystem	2062NA0100	165	03	70	Volume 3 - 402
Transportable Tactical Command Communications (T2C	2956B85800	30	02	18	Volume 2 - 43
Unified Command Suite	8563B58601	42	02	32	Volume 2 - 133

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

Appropriation 2035A: Other Procurement, Army

Line #	BA	BSA	Line Item Number	Line Item Title	Page
118	03	10	2224M11205	Family Of Non-Lethal Equipment (FNLE)	Volume 3 - 1
119	03	10	2300M90101	Base Defense Systems (BDS)	Volume 3 - 3
120	03	10	4516M01001	CBRN Defense	Volume 3 - 18
121	03	10	6230MX0600	Smoke & Obscurant Family: SOF (Non AAO Item)	Volume 3 - 42
122	03	15	2831MX0100	Tactical Bridging	Volume 3 - 43
123	03	15	3542MA8890	Tactical Bridge, Float-Ribbon	Volume 3 - 50
124	03	15	3758G06520	BRIDGE SUPPLEMENTAL SET	Volume 3 - 58
125	03	15	3974G07000	Common Bridge Transporter (CBT) Recap	Volume 3 - 66
126	03	20	2876R68200	Handheld Standoff Minefield Detection Sys-HSTAMIDS	Volume 3 - 74
127	03	20	2881R68400	Grnd Standoff Mine Detectn Sysm (GSTAMIDS)	Volume 3 - 79
128	03	20	2889R64001	HUSKY MOUNTED DETECTION SYSTEM (HMDS)	Volume 3 - 81
129	03	20	4865M80400	Robotic Combat Support System (RCSS)	Volume 3 - 90
130	03	20	4867W12001	EOD Robotics Systems Recapitalization	Volume 3 - 91
131	03	20	4868W12002	Robotics and Applique Systems	Volume 3 - 93
132	03	20	5913R63610	Render Safe Sets kits Outfits	Volume 3 - 125
133	03	20	8500R12001	Family of Boats and Motors	Volume 3 - 133

Appropriation 2035A: Other Procurement, Army

Line #	BA	BSA	Line Item Number	Line Item Title	Page
134	03	25	0100MF9000	Heaters and ECU's	Volume 3 - 135
135	03	25	8796MA6800	Soldier Enhancement	Volume 3 - 141
136	03	25	8822G01101	Personnel Recovery Support System (PRSS)	Volume 3 - 142
137	03	25	8825R80501	Ground Soldier System	Volume 3 - 147
138	03	25	8827R80800	Mobile Soldier Power	Volume 3 - 154
139	03	25	8860M80200	Force Provider	Volume 3 - 166
140	03	25	9120M65800	Field Feeding Equipment	Volume 3 - 175
141	03	25	9140MA7804	Cargo Aerial Del & Personnel Parachute Systems	Volume 3 - 177
142	03	25	9462R70001	Family Of Engr Combat and Construction Sets	Volume 3 - 185
143	03	25	9530ML5301	Items Less Than $5M (Eng Spt)	Volume 3 - 222
144	03	30	0725MB6400	QUALITY SURVEILLANCE EQUIPMENT	Volume 3 - 224
145	03	30	4700MA6000	Distribution Systems, Petroleum & Water	Volume 3 - 226
146	03	40	7500MN1000	Combat Support Medical	Volume 3 - 259
147	03	45	0639G05301	Mobile Maintenance Equipment Systems	Volume 3 - 270
148	03	45	9562ML5345	Items Less Than $5.0M (Maint Eq)	Volume 3 - 295
149	03	50	0375R03800	Grader, Road Mtzd, Hvy, 6X4 (CCE)	Volume 3 - 297
150	03	50	0822RA0100	Scrapers, Earthmoving	Volume 3 - 299
151	03	50	4100R04500	Loaders	Volume 3 - 301

Appropriation 2035A: Other Procurement, Army

Line #	BA	BSA	Line Item Number	Line Item Title	Page
152	03	50	4428X01500	Hydraulic Excavator	Volume 3 - 303
153	03	50	4700M05800	Tractor, Full Tracked	Volume 3 - 305
154	03	50	4734R06701	All Terrain Cranes	Volume 3 - 307
155	03	50	7495R05901	High Mobility Engineer Excavator (HMEE)	Volume 3 - 313
156	03	50	9120M05500	Const Equip ESP	Volume 3 - 315
157	03	50	9462ML5350	Items Less Than $5.0M (Const Equip)	Volume 3 - 321
158	03	55	3569M11101	Army Watercraft Esp	Volume 3 - 323
159	03	55	8211R01001	Maneuver Support Vessel (MSV)	Volume 3 - 332
160	03	55	9552ML5355	Items Less Than $5.0M (Float/Rail)	Volume 3 - 341
161	03	60	0426MA9800	Generators And Associated Equip	Volume 3 - 343
162	03	60	9012R42501	Tactical Electric Power Recapitalization	Volume 3 - 372
163	03	65	5558G41001	Family Of Forklifts	Volume 3 - 381
164	03	70	1780MA6600	Combat Training Centers Support	Volume 3 - 390
165	03	70	2062NA0100	Training Devices, Nonsystem	Volume 3 - 402
166	03	70	2079NA2000	Synthetic Training Environment (STE)	Volume 3 - 444
167	03	70	6800NA0173	Aviation Combined Arms Tactical Trainer	Volume 3 - 465
168	03	70	6860NA0176	Gaming Technology In Support of Army Training	Volume 3 - 467
169	03	80	0100N10000	Calibration Sets Equipment	Volume 3 - 473

Appropriation 2035A: Other Procurement, Army

Line #	BA	BSA	Line Item Number	Line Item Title	Page
170	03	80	0200MB4000	Integrated Family Of Test Equipment (IFTE)	Volume 3 - 475
171	03	80	0600N11000	Test Equipment Modernization (TEMOD)	Volume 3 - 491
172	03	80	0605G02510	Test Equipment Modernization (TEMOD)	Volume 3 - 493
173	03	90	0017M80101	Rapid Equipping Soldier Support Equipment	Volume 3 - 510
174	03	90	0050MA0780	Physical Security Systems (OPA3)	Volume 3 - 512
175	03	90	0312MB7000	Base Level Common Equipment	Volume 3 - 525
176	03	90	1110MA4500	Modification Of In-Svc Equipment (OPA-3)	Volume 3 - 529
177	03	90	1500MA9160	BUILDING, PRE-FAB, RELOCATABLE	Volume 3 - 560
178	03	90	1572MA6700	Special Equipment For User Testing	Volume 3 - 568
179	03	90	1573MA6820	Special Equipment for Test and Evaluation	Volume 3 - 569

Appropriation 2035A: Other Procurement, Army

Line #	BA	BSA	Line Item Number	Line Item Title	Page
180	04	20	0200BS9100	INITIAL SPARES - C&E	Volume 3 - 581

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

Line Item Title	Line Item Number	Line #	BA	BSA	Page
All Terrain Cranes	4734R06701	154	03	50	Volume 3 - 307
Army Watercraft Esp	3569M11101	158	03	55	Volume 3 - 323
Aviation Combined Arms Tactical Trainer	6800NA0173	167	03	70	Volume 3 - 465
BRIDGE SUPPLEMENTAL SET	3758G06520	124	03	15	Volume 3 - 58
BUILDING, PRE-FAB, RELOCATABLE	1500MA9160	177	03	90	Volume 3 - 560
Base Defense Systems (BDS)	2300M90101	119	03	10	Volume 3 - 3
Base Level Common Equipment	0312MB7000	175	03	90	Volume 3 - 525
CBRN Defense	4516M01001	120	03	10	Volume 3 - 18
Calibration Sets Equipment	0100N10000	169	03	80	Volume 3 - 473
Cargo Aerial Del & Personnel Parachute Systems	9140MA7804	141	03	25	Volume 3 - 177
Combat Support Medical	7500MN1000	146	03	40	Volume 3 - 259
Combat Training Centers Support	1780MA6600	164	03	70	Volume 3 - 390
Common Bridge Transporter (CBT) Recap	3974G07000	125	03	15	Volume 3 - 66
Const Equip ESP	9120M05500	156	03	50	Volume 3 - 315
Distribution Systems, Petroleum & Water	4700MA6000	145	03	30	Volume 3 - 226
EOD Robotics Systems Recapitalization	4867W12001	130	03	20	Volume 3 - 91
Family Of Engr Combat and Construction Sets	9462R70001	142	03	25	Volume 3 - 185

Line Item Title	Line Item Number	Line #	BA	BSA	Page
Family Of Forklifts	5558G41001	163	03	65	Volume 3 - 381
Family Of Non-Lethal Equipment (FNLE)	2224M11205	118	03	10	Volume 3 - 1
Family of Boats and Motors	8500R12001	133	03	20	Volume 3 - 133
Field Feeding Equipment	9120M65800	140	03	25	Volume 3 - 175
Force Provider	8860M80200	139	03	25	Volume 3 - 166
Gaming Technology In Support of Army Training	6860NA0176	168	03	70	Volume 3 - 467
Generators And Associated Equip	0426MA9800	161	03	60	Volume 3 - 343
Grader, Road Mtzd, Hvy, 6X4 (CCE)	0375R03800	149	03	50	Volume 3 - 297
Grnd Standoff Mine Detectn Sysm (GSTAMIDS)	2881R68400	127	03	20	Volume 3 - 79
Ground Soldier System	8825R80501	137	03	25	Volume 3 - 147
HUSKY MOUNTED DETECTION SYSTEM (HMDS)	2889R64001	128	03	20	Volume 3 - 81
Handheld Standoff Minefield Detection Sys-HSTAMIDS	2876R68200	126	03	20	Volume 3 - 74
Heaters and ECU's	0100MF9000	134	03	25	Volume 3 - 135
High Mobility Engineer Excavator (HMEE)	7495R05901	155	03	50	Volume 3 - 313
Hydraulic Excavator	4428X01500	152	03	50	Volume 3 - 303
INITIAL SPARES - C&E	0200BS9100	180	04	20	Volume 3 - 581
Integrated Family Of Test Equipment (IFTE)	0200MB4000	170	03	80	Volume 3 - 475
Items Less Than $5.0M (Const Equip)	9462ML5350	157	03	50	Volume 3 - 321
Items Less Than $5.0M (Float/Rail)	9552ML5355	160	03	55	Volume 3 - 341
Items Less Than $5.0M (Maint Eq)	9562ML5345	148	03	45	Volume 3 - 295

Line Item Title	Line Item Number	Line #	BA	BSA	Page
Items Less Than $5M (Eng Spt)	9530ML5301	143	03	25	Volume 3 - 222
Loaders	4100R04500	151	03	50	Volume 3 - 301
Maneuver Support Vessel (MSV)	8211R01001	159	03	55	Volume 3 - 332
Mobile Maintenance Equipment Systems	0639G05301	147	03	45	Volume 3 - 270
Mobile Soldier Power	8827R80800	138	03	25	Volume 3 - 154
Modification Of In-Svc Equipment (OPA-3)	1110MA4500	176	03	90	Volume 3 - 529
Personnel Recovery Support System (PRSS)	8822G01101	136	03	25	Volume 3 - 142
Physical Security Systems (OPA3)	0050MA0780	174	03	90	Volume 3 - 512
QUALITY SURVEILLANCE EQUIPMENT	0725MB6400	144	03	30	Volume 3 - 224
Rapid Equipping Soldier Support Equipment	0017M80101	173	03	90	Volume 3 - 510
Render Safe Sets kits Outfits	5913R63610	132	03	20	Volume 3 - 125
Robotic Combat Support System (RCSS)	4865M80400	129	03	20	Volume 3 - 90
Robotics and Applique Systems	4868W12002	131	03	20	Volume 3 - 93
Scrapers, Earthmoving	0822RA0100	150	03	50	Volume 3 - 299
Smoke & Obscurant Family: SOF (Non AAO Item)	6230MX0600	121	03	10	Volume 3 - 42
Soldier Enhancement	8796MA6800	135	03	25	Volume 3 - 141
Special Equipment For User Testing	1572MA6700	178	03	90	Volume 3 - 568
Special Equipment for Test and Evaluation	1573MA6820	179	03	90	Volume 3 - 569
Synthetic Training Environment (STE)	2079NA2000	166	03	70	Volume 3 - 444
Tactical Bridge, Float-Ribbon	3542MA8890	123	03	15	Volume 3 - 50

Line Item Title	Line Item Number	Line #	BA	BSA	Page
Tactical Bridging	2831MX0100	122	03	15	Volume 3 - 43
Tactical Electric Power Recapitalization	9012R42501	162	03	60	Volume 3 - 372
Test Equipment Modernization (TEMOD)	0600N11000	171	03	80	Volume 3 - 491
Test Equipment Modernization (TEMOD)	0605G02510	172	03	80	Volume 3 - 493
Tractor, Full Tracked	4700M05800	153	03	50	Volume 3 - 305
Training Devices, Nonsystem	2062NA0100	165	03	70	Volume 3 - 402

Army • Budget Estimates FY 2022 • Procurement
Exhibit P-1M, Procurement Programs - Modification Summary
(Listing by Model)

Lookup Matrix by Model

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

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Exhibit P-1M, Procurement Programs - Modification Summary
(Funding for Modifications)

Funding ($ M)

P-3a Modification Title	PYS	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026
Exhibit P-3a										
MODIFICATION KITS	968.707	48.916	53.386	21.300	-	21.300	-	-	-	-
INSTALLATION OF MODIFICATIONS	266.645	14.109	5.251	5.574	-	5.574	-	-	-	-
Totals (Total Obligation Authority)										
Total Obligation Authority	**1,235.352**	**63.025**	**58.637**	**26.874**	**0.000**	**26.874**	**0.000**	**0.000**	**0.000**	**0.000**

Exhibit P-40, Budget Line Item Justification: PB 2022 Army	Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 10: Chemical Defensive Equipment	**P-1 Line Item Number / Title:** 2224M11205 / Family Of Non-Lethal Equipment (FNLE)

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

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026	To Complete	Total
Procurement Quantity *(Units in Each)*	1,113	545	680	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	65.998	28.480	32.480	-	-	-	-	-	-	-	-	-
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	65.998	28.480	32.480	-	-	-	-	-	-	-	-	-
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**65.998**	**28.480**	**32.480**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
(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)*	59.297	52.257	47.765	-	-	-	-	-	-	-	-	-

Description:

This line contains Non-Lethal Equipment, All Types.

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

M11206 Single Net Solution with Remote Deployment Device (SNS-RDD) system is a wheeled vehicle stopping system. The SNS-RDD will increase soldier survivability by allowing Military Police units to quickly and remotely employ a Soldier-emplaced vehicle stopping capability to enable Force Protection (FP) and enhance the security of personnel and materiel by allowing alternatives to lethal force. The RDD is capable of deploying a SNS in five seconds. The SNS is a single use net with spikes designed to meet a capability gap of hastily stopping wheeled vehicles up to 22,000 pounds traveling up to 30 miles per hour within 200 feet. These systems can be quickly employed to stop a vehicle without resorting to lethal force. The system can be emplaced anywhere and does not require altering the road surface or installation of a permanent apparatus. Essential for megacity and other urban operations for increased physical protection measures. A complete SNS-RDD system includes (1) RDD and (2) SNS. This item will be Code A after Full Material Release in 1QFY22.

Secondary Distribution		FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026
Army	Quantity	545	317	-	-	-	-	-	-	-
	Total Obligation Authority	28.480	18.280	-	-	-	-	-	-	-
ANG	Quantity	-	363	-	-	-	-	-	-	-
	Total Obligation Authority	-	14.200	-	-	-	-	-	-	-
Total:	**Quantity**	**545**	**680**	**-**	**-**	**-**	**-**	**-**	**-**	**-**

Exhibit P-40, Budget Line Item Justification: PB 2022 Army		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 10: Chemical Defensive Equipment	**P-1 Line Item Number / Title:** 2224M11205 / Family Of Non-Lethal Equipment (FNLE)	
ID Code (A=Service Ready, B=Not Service Ready):	**Program Elements for Code B Items:** N/A	**Other Related Program Elements:** N/A
Line Item MDAP/MAIS Code: N/A		

Secondary Distribution		FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026
Secondary Distribution	Total Obligation Authority	28.480	32.480	-	-	-	-	-	-	-

Justification:
M11205 has no FY2022 funding request.

M11309 Acoustic Hailing Device (AHD): The request supports annual training and builds a depot level in accordance with the Army's procurement goal

M11206 Single Net Solution with Remote Deployment Device (SNS-RDD): The request supports annual training and builds a depot level in accordance with the Army's procurement goal

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 2022 Army	Date: May 2021
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 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	18	4	-	4	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	90.429	39.984	98.960	62.295	-	62.295	-	-	-	-	-	-
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	90.429	39.984	98.960	62.295	-	62.295	-	-	-	-	-	-
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**90.429**	**39.984**	**98.960**	**62.295**	**-**	**62.295**	**-**	**-**	**-**	**-**	**-**	**-**
(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)*	-	-	5,497.778	15,573.750	-	15,573.750	-	-	-	-	-	-

Description:

Base Defense Systems (BDS) includes Integrated Ground Security, Surveillance and Response Capability (IGSSR-C) (M90106), Non-Intrusive Inspection Systems (NIIS) (M90108), Integrated Base Defense Non-Standard Equipment (IBD NS-E) Kitting (M90115) - includes Counter Vehicle Borne Improvised Explosive Device (CVBIED), Ground-Based Operational Surveillance System (Expeditionary) (G-BOSS(E)) (M90212), and Tactical Security System (TSS) (M90220).

IGSSR-C (M90106) is a Joint Requirement that provides a layered approach to integrate sensors, sensor systems and unmanned systems with automated fusion capabilities to create an in-depth security, surveillance and response Force Protection (FP) COP capability for CONUS fixed, OCONUS semi-fixed or expeditionary elements in all Operating Environments (OE). This capability will enable rapid decision analysis, speed the response process as well as increase information dissemination horizontally and vertically along the chain of command and with outside supporting organizations. IGSSR-C is a software centric fusion engine that connects legacy and emerging FP systems, legacy Chemical, Biological, Radiological, Nuclear, and Explosive (CBRNE), unmanned systems, biometric identification and forensic data systems. The desired end state is to achieve interoperability with current and emerging FP systems used by Joint Forces, Department of Defense (DoD) agencies and multi-national forces. This is a new start for FY21 OPA.

NIIS (M90108) is a family of systems that inspects for the presence of explosives, weapons and other contraband in vehicles, cargo containers and personnel from a distance providing stand-off ballistic and blast protection. All systems are either mobile or fully re-locatable. It is a force multiplier that maximizes protection of personnel, equipment and installations while minimizing manpower requirements. NIIS provides the capability to non-intrusively inspect vehicles, cargo containers and personnel for the presence of explosives, weapons or other contraband which can kill or injure Soldiers and destroy critical warfighting materiel. NIIS supports the urgent need for Counter-Improvised Explosive Device equipment to support military operations.

Integrated Base Defense Non-Standard Equipment (IBD NS-E) Kitting (M90115), which includes CVBIED, is an integrated suite of systems developed in response to CENTCOM JUONS CC-0540. CVBIED provides an early VBIED detection capability prior to vehicles reaching entry into Forward Operating Bases. Counter Vehicle Borne Improvised Explosive Device equipment includes passive cargo inspection technologies, wide area motion imaging sensors, stand-off bulk and trace explosive detection sensors, enhanced optical vehicle inspections systems and other vehicle inspection equipment. Additional sensor systems will be procured and integrated into the current Force Protection (FP) infrastructure as part of CVBIED.

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

Exhibit P-40, Budget Line Item Justification: PB 2022 Army		Date: May 2021
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		

Ground-Based Operational Surveillance System (Expeditionary) (G-BOSS(E)) (M90212) 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. G-BOSS(E) will replace obsolete, Quick Reaction Capability (QRC) surveillance and force protections systems utilizing modular configurations: Medium variant (mid sensor height) for small to medium size base, and Heavy variant (high level sensor height) for large contingency base camps. G-BOSS(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.

Tactical Security System (TSS) (M90220) 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. This is a new start for FY21 OPA. (Tactical Security System is in the formal process of changing program names to Surveillance Security System (SSS)).

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 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026
Army	Quantity	-	18	4	-	4	-	-	-	-
	Total Obligation Authority	39.984	98.960	62.295	-	62.295	-	-	-	-
Total: Secondary Distribution	**Quantity**	**-**	**18**	**4**	**-**	**4**	**-**	**-**	**-**	**-**
	Total Obligation Authority	**39.984**	**98.960**	**62.295**	**-**	**62.295**	**-**	**-**	**-**	**-**

Exhibit P-40, Budget Line Item Justification: PB 2022 Army	Date: May 2021
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 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/ MAIS Code	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)
P-5	M90106 / IntegGrdSecSurvRespC (IGSSR-C)	P-5a			- / -	- / -	4 / 7.287	3 / 7.412	- / -	3 / 7.412
P-5	M90108 / NON-INTRUSIVE INSPECTION SYSTEMS (NIIS)				- / 8.868	- / -	8 / 12.900	- / -	- / -	- / -
P-5	M90115 / INTEG BASE DEF NONSTAND EQUIP (IBD NS-E) KITTING	P-5a			- / 66.997	- / 39.984	- / 64.584	- / 48.057	- / -	- / 48.057
P-5	M90212 / GRND-BASED OPNL SURV SYS (EXPED) (GBOSS-E)				- / 14.564	- / -	- / -	1 / 5.238	- / -	1 / 5.238
P-5	M90220 / TACTICAL SECURITY SYSTEM (TSS)	P-5a			- / -	- / -	6 / 14.189	- / 1.588	- / -	- / 1.588
P-40	**Total Gross/Weapon System Cost**				**- / 90.429**	**- / 39.984**	**18 / 98.960**	**4 / 62.295**	**- / -**	**4 / 62.295**

*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:
FY2022 Base dollars in the amount of $62.295 million supports the following:

FY2022 M90106 / IntegGrdSecSurvRespC (IGSSR-C) base procurement dollars of $7.412 million supports the procurement and fielding of three systems, initial fielding support, training and program management in support of the Enduring Requirement for Operation Freedom Sentinel . This will provide a layered approach to integrate sensors, sensor systems, and unmanned systems with automated fusion capabilities. Fielding is intended for Army Pre-position Stock (APS).

FY2022 M90115 / INTE BASE DEF NONSTAND EQUIP (IBD NS-E) - base procurement dollars of $48.057 million supports JUONS CC-0540 in support of the Direct War Cost for Operation Freedom Sentinel. These funds will procure passive and non-intrusive cargo inspection component systems, wide-area motion imaging sensors, stand-off bulk and trace explosive detection sensors, enhanced automatic vehicle inspection systems, other ancillary vehicle inspection equipment, and all required integration and support equipment necessary to field the systems that address the JUONS CC-0540 capability gaps.

FY 2022 M90212 / Ground-Based Operational Surveillance System (Expeditionary) (G-BOSS(E)) - base procurement dollars of $5.238 million supports the procurement and fielding of two systems, initial fielding support, training and program management in support of the Enduring Requirement for Operation Freedom Sentinel ($1.985 million) and the Direct War Cost for Operation Freedom Sentinel ($3.253 million). This will 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. Fielding is intended for Army Pre-position Stock (APS). This is a new start for FY22 OPA.

FY 2022 M90220 / Tactical Security System (TSS) - base procurement dollars of $1.588 million supports the training and program management in support of the Enduring Requirement for Operation Freedom Sentinel. This will provide a modular, scalable, lightweight, rapidly deployable, ground based security and surveillance Family of Systems (FoS). The design of TSS allows for hasty emplacement and is tailorable to support short and long term security, surveillance and detection missions. Fielding is intended for Army Pre-position Stock (APS).

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 2022 Army		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 10	**P-1 Line Item Number / Title:** 2300M90101 / Base Defense Systems (BDS)	**Item Number / Title [DODIC]:** M90106 / IntegGrdSecSurvRespC (IGSSR-C)
ID Code (A=Service Ready, B=Not Service Ready) :	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Procurement Quantity *(Units in Each)*	-	-	4	3	-	3
Gross/Weapon System Cost *($ in Millions)*	-	-	7.287	7.412	-	7.412
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	-	-	7.287	7.412	-	7.412
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**-**	**-**	**7.287**	**7.412**	**-**	**7.412**
(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)*	-	-	1,821.750	2,470.667	-	2,470.667

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

Cost Elements	Prior Years			FY 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 Total		
	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)
Flyaway Cost																		
Recurring Cost																		
IGSSR-C Equipment(†)	-	-	-	-	-	-	1,083.000	4	4.332	1,496.333	3	4.489	-	-	-	1,496.333	3	4.489
IGSSR-C Program MGMT Support	-	-	-	-	-	-	-	-	0.565	-	-	0.539	-	-	-	-	-	0.539
IGSSR-C Initial Filding Support	-	-	-	-	-	-	-	-	1.399	-	-	1.404	-	-	-	-	-	1.404
Subtotal: Recurring Cost	-	-	-	-	-	-	-	-	*6.296*	-	-	*6.432*	-	-	-	-	-	*6.432*
Subtotal: Flyaway Cost	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***6.296***	**-**	**-**	***6.432***	**-**	**-**	**-**	**-**	**-**	***6.432***
Support - Program Management Cost																		
Contractor Management	-	-	-	-	-	-	-	-	0.991	-	-	0.980	-	-	-	-	-	0.980
Subtotal: Support - Program Management Cost	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***0.991***	**-**	**-**	***0.980***	**-**	**-**	**-**	**-**	**-**	***0.980***
Gross/Weapon System Cost	**-**	**-**	**-**	**-**	**-**	**-**	**1,821.750**	**4**	**7.287**	**2,470.667**	**3**	**7.412**	**-**	**-**	**-**	**2,470.667**	**3**	**7.412**

Secondary Distribution		FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Army	Quantity	-	4	3	-	3
	Total Obligation Authority	-	7.287	7.412	-	7.412
Total:	**Quantity**	**-**	**4**	**3**	**-**	**3**

Exhibit P-5, Cost Analysis: PB 2022 Army		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 10	**P-1 Line Item Number / Title:** 2300M90101 / Base Defense Systems (BDS)	**Item Number / Title [DODIC]:** M90106 / IntegGrdSecSurvRespC (IGSSR-C)
ID Code (A=Service Ready, B=Not Service Ready) :	**MDAP/MAIS Code:**	

Secondary Distribution		FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Secondary Distribution	Total Obligation Authority	-	7.287	7.412	-	7.412

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2022 Army		**Date:** May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 10	**P-1 Line Item Number / Title:** 2300M90101 / Base Defense Systems (BDS)	**Item Number / Title [DODIC]:** M90106 / IntegGrdSecSurvRespC (IGSSR-C)

Cost Elements	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
IGSSR-C Equipment		2021	PD Common Hardware Systems / Taunton Massachussetts	C / IDIQ	Taunton Mass	Jul 2021	Dec 2021	4	1,083.000	N		
IGSSR-C Equipment		2022	PD Common Hardware Systems / Taunton Massachussetts	C / IDIQ	Taunton Mass	Jan 2022	Jul 2022	3	1,496.333	N		

Remarks:
New start supports the procurement and fielding of IGSSR-C systems, initial product support, training and program management to meet APO of 37 systems.

Exhibit P-5, Cost Analysis: PB 2022 Army		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 10	**P-1 Line Item Number / Title:** 2300M90101 / Base Defense Systems (BDS)	**Item Number / Title [DODIC]:** M90108 / NON-INTRUSIVE INSPECTION SYSTEMS (NIIS)
ID Code (A=Service Ready, B=Not Service Ready) :	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Procurement Quantity *(Units in Each)*	-	-	8	-	-	-
Gross/Weapon System Cost *($ in Millions)*	8.868	-	12.900	-	-	-
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	8.868	-	12.900	-	-	-
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**8.868**	**-**	**12.900**	**-**	**-**	**-**
(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)*	-	-	1,612.500	-	-	-

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

Cost Elements	Prior Years			FY 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 Total		
	Unit Cost *($ K)*	Qty *(Each)*	Total Cost *($ M)*	Unit Cost *($ K)*	Qty *(Each)*	Total Cost *($ M)*	Unit Cost *($ K)*	Qty *(Each)*	Total Cost *($ M)*	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																		
NIIS T-25 System Procurement	1,773.600	5	8.868	-	-	-	1,612.500	8	12.900	-	-	-	-	-	-	-	-	-
Subtotal: Recurring Cost	-	-	*8.868*	-	-	-	-	-	*12.900*	-	-	-	-	-	-	-	-	-
Subtotal: Hardware Cost	**-**	**-**	***8.868***	**-**	**-**	**-**	**-**	**-**	***12.900***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Gross/Weapon System Cost	**-**	**-**	**8.868**	**-**	**-**	**-**	**1,612.500**	**8**	**12.900**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**

Secondary Distribution		FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Army	Quantity	-	8	-	-	-
	Total Obligation Authority	-	12.900	-	-	-
Total: Secondary Distribution	**Quantity**	**-**	**8**	**-**	**-**	**-**
	Total Obligation Authority	**-**	**12.900**	**-**	**-**	**-**

Exhibit P-5, Cost Analysis: PB 2022 Army		Date: May 2021
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 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	66.997	39.984	64.584	48.057	-	48.057
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	66.997	39.984	64.584	48.057	-	48.057
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**66.997**	**39.984**	**64.584**	**48.057**	**-**	**48.057**
(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)*	33,498.500	19,992.000	32,292.000	24,028.500	-	24,028.500

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

Cost Elements	Prior Years			FY 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 Total		
	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)
Flyaway Cost																		
Recurring Cost																		
JUONS CC-0540 Equipment(†)	21,033.000	3	63.099	17,665.000	2	35.330	21,877.500	2	43.755	22,600.000	2	45.200	-	-	-	22,600.000	2	45.200
JUONS CC-0540 Program Mgt Support	-	-	1.220	-	-	1.470	-	-	1.800	-	-	1.567	-	-	-	-	-	1.567
JUONS CC-0540 Initial Fielding Support	-	-	2.678	-	-	3.184	-	-	2.026	-	-	1.290	-	-	-	-	-	1.290
KAF FP Modernization Equipment(†)	-	-	-	-	-	-	17,003.000	1	17.003	-	-	-	-	-	-	-	-	-
Subtotal: Recurring Cost	-	-	*66.997*	-	-	*39.984*	-	-	*64.584*	-	-	*48.057*	-	-	-	-	-	*48.057*
Subtotal: Flyaway Cost	**-**	**-**	***66.997***	**-**	**-**	***39.984***	**-**	**-**	***64.584***	**-**	**-**	***48.057***	**-**	**-**	**-**	**-**	**-**	***48.057***
Gross/Weapon System Cost	**33,498.500**	**-**	**66.997**	**19,992.000**	**-**	**39.984**	**32,292.000**	**-**	**64.584**	**24,028.500**	**-**	**48.057**	**-**	**-**	**-**	**24,028.500**	**-**	**48.057**

Secondary Distribution		FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Army	Quantity	-	-	-	-	-
	Total Obligation Authority	39.984	64.584	48.057	-	48.057
Total:	**Quantity**	**-**	**-**	**-**	**-**	**-**

Exhibit P-5, Cost Analysis: PB 2022 Army		Date: May 2021
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 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Secondary Distribution	Total Obligation Authority	39.984	64.584	48.057	-	48.057

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2022 Army		Date: May 2021
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
JUONS CC-0540 Equipment	✓	2021	TBD / TBD	Various	Various	Jan 2021	Dec 2021	2	21,877.500	N		
KAF FP Modernization Equipment	✓	2021	TBD / TBD	Various	Various	Jan 2021	Dec 2021	1	17,003.000	Y		

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

Exhibit P-5, Cost Analysis: PB 2022 Army		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 10	**P-1 Line Item Number / Title:** 2300M90101 / Base Defense Systems (BDS)	**Item Number / Title [DODIC]:** M90212 / GRND-BASED OPNL SURV SYS (EXPED) (GBOSS-E)
ID Code (A=Service Ready, B=Not Service Ready) :	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Procurement Quantity *(Units in Each)*	-	-	-	1	-	1
Gross/Weapon System Cost *($ in Millions)*	14.564	-	-	5.238	-	5.238
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	14.564	-	-	5.238	-	5.238
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**14.564**	**-**	**-**	**5.238**	**-**	**5.238**
(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)*	-	-	-	5,238.000	-	5,238.000

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

Cost Elements	Prior Years			FY 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 Total		
	Unit Cost *($ K)*	Qty *(Each)*	Total Cost *($ M)*	Unit Cost *($ K)*	Qty *(Each)*	Total Cost *($ M)*	Unit Cost *($ K)*	Qty *(Each)*	Total Cost *($ M)*	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																		
G-BOSS(E) Equipment	-	-	-	-	-	-	-	-	-	1,684.000	2	3.368	-	-	-	1,684.000	2	3.368
Subtotal: Recurring Cost	-	-	-	-	-	-	-	-	-	-	-	*3.368*	-	-	-	-	-	*3.368*
Subtotal: Hardware Cost	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***3.368***	**-**	**-**	**-**	**-**	**-**	***3.368***
Support - Fielding Cost																		
Fielding	-	-	14.564	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Support - Fielding Cost	**-**	**-**	***14.564***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Support - Program Management Cost																		
Contractor Management	-	-	-	-	-	-	-	-	-	-	-	0.678	-	-	-	-	-	0.678
Government Management	-	-	-	-	-	-	-	-	-	-	-	1.192	-	-	-	-	-	1.192
Subtotal: Support - Program Management Cost	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***1.870***	**-**	**-**	**-**	**-**	**-**	***1.870***
Gross/Weapon System Cost	**-**	**-**	**14.564**	**-**	**-**	**-**	**-**	**-**	**-**	**5,238.000**	**1**	**5.238**	**-**	**-**	**-**	**5,238.000**	**1**	**5.238**

Remarks:
G-BOSS(E) will be procuring a quantity of 2 systems in FY22. PM FPS will correct the compo quantity from 1 to 2 to match this remark at the next compo quantity update.

Exhibit P-5, Cost Analysis: PB 2022 Army		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 10	**P-1 Line Item Number / Title:** 2300M90101 / Base Defense Systems (BDS)	**Item Number / Title [DODIC]:** M90212 / GRND-BASED OPNL SURV SYS (EXPED) (GBOSS-E)
ID Code (A=Service Ready, B=Not Service Ready) :	**MDAP/MAIS Code:**	

Secondary Distribution		FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Army	Quantity	-	-	1	-	1
	Total Obligation Authority	-	-	5.238	-	5.238
Total: Secondary Distribution	**Quantity**	**-**	**-**	**1**	**-**	**1**
	Total Obligation Authority	**-**	**-**	**5.238**	**-**	**5.238**

Exhibit P-5, Cost Analysis: PB 2022 Army		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 10	**P-1 Line Item Number / Title:** 2300M90101 / Base Defense Systems (BDS)	**Item Number / Title [DODIC]:** M90220 / TACTICAL SECURITY SYSTEM (TSS)
ID Code (A=Service Ready, B=Not Service Ready) :	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Procurement Quantity *(Units in Each)*	-	-	6	-	-	-
Gross/Weapon System Cost *($ in Millions)*	-	-	14.189	1.588	-	1.588
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	-	-	14.189	1.588	-	1.588
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**-**	**-**	**14.189**	**1.588**	**-**	**1.588**
(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)*	-	-	2,364.833	-	-	-

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

Cost Elements	Prior Years			FY 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 Total		
	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)
Flyaway Cost																		
Recurring Cost																		
TSS Equipment(†)	-	-	-	-	-	-	1,506.286	7	10.544	-	-	-	-	-	-	-	-	-
TSS Training/Manuals	-	-	-	-	-	-	-	-	0.262	-	-	-	-	-	-	-	-	-
TSS Initial Fielding Support	-	-	-	-	-	-	-	-	0.154	-	-	-	-	-	-	-	-	-
TSS Engineering Change Proposals	-	-	-	-	-	-	-	-	0.422	-	-	-	-	-	-	-	-	-
TSS Software Maintenance	-	-	-	-	-	-	-	-	0.121	-	-	-	-	-	-	-	-	-
TSS Risk Management Framework Support	-	-	-	-	-	-	-	-	0.360	-	-	-	-	-	-	-	-	-
TSS Initial Spares	-	-	-	-	-	-	-	-	0.737	-	-	-	-	-	-	-	-	-
Subtotal: Recurring Cost	-	-	-	-	-	-	-	-	*12.600*	-	-	-	-	-	-	-	-	-
Subtotal: Flyaway Cost	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***12.600***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Support - Program Management Cost																		
Contractor Management	-	-	-	-	-	-	-	-	0.739	-	-	0.761	-	-	-	-	-	0.761
Government Management	-	-	-	-	-	-	-	-	0.850	-	-	0.827	-	-	-	-	-	0.827
Subtotal: Support - Program Management Cost	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***1.589***	**-**	**-**	***1.588***	**-**	**-**	**-**	**-**	**-**	***1.588***

Exhibit P-5, Cost Analysis: PB 2022 Army		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 10	**P-1 Line Item Number / Title:** 2300M90101 / Base Defense Systems (BDS)	**Item Number / Title [DODIC]:** M90220 / TACTICAL SECURITY SYSTEM (TSS)
ID Code (A=Service Ready, B=Not Service Ready) :	**MDAP/MAIS Code:**	

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

Cost Elements	Prior Years			FY 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 Total		
	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	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	-	-	-	-	-	-	2,364.833	6	14.189	-	-	1.588	-	-	-	-	-	1.588

Secondary Distribution		FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Army	Quantity	-	6	-	-	-
	Total Obligation Authority	-	14.189	1.588	-	1.588
Total: Secondary Distribution	**Quantity**	-	6	-	-	-
	Total Obligation Authority	-	14.189	1.588	-	1.588

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2022 Army		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 10	P-1 Line Item Number / Title: 2300M90101 / Base Defense Systems (BDS)	Item Number / Title [DODIC]: M90220 / TACTICAL SECURITY SYSTEM (TSS)

Cost Elements	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
TSS Equipment		2021	TBD / TBD	TBD	TBD	Sep 2021	Aug 2022	7	1,506.286	N		
TSS Equipment	✓	2022	TBD / TBD	TBD	TBD	Sep 2022	Aug 2023	0	0.000	N		

Remarks:
New start supports the procurement and fielding of seven systems, initial fielding support, training and program management. MS C decision 4QFY21

Exhibit P-40, Budget Line Item Justification: PB 2022 Army	Date: May 2021
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 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026	To Complete	Total
Procurement Quantity *(Units in Each)*	11,878	353	3,742	2,386	-	2,386	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	399.112	43.289	47.343	55.632	-	55.632	-	-	-	-	-	-
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	399.112	43.289	47.343	55.632	-	55.632	-	-	-	-	-	-
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**399.112**	**43.289**	**47.343**	**55.632**	**-**	**55.632**	**-**	**-**	**-**	**-**	**-**	**-**
(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)*	33.601	122.632	12.652	23.316	-	23.316	-	-	-	-	-	-

Description:

Funds acquisition of critically required Chemical Biological Radiological equipment needed to support Army mission requirements in six primary categories: Collective Protection (CP) (M01006), Decontamination (DECON) (M01007), Contamination Avoidance (CA) (M01008), Consequence Management (CM) (M01011), Radiological Detection System (RDS) (M01280), and Explosive Ordnance Disposal (EOD) Dismounted Reconnaissance SKO (DR SKO) (M09988). Collective Protection platforms include hard and soft wall shelters, vehicles, and structures. The Contamination Avoidance program includes systems that provide detection, identification, collection and reporting of Chemical, Biological, Radiological and Nuclear (CBRN) hazards. The Individual Protection program procures protective equipment and supporting test equipment to protect the Soldier from the effects of CBRN hazards. Consequence Management (CM) (M01011) procurement, the Radiac Set supports the Radiological Detection System as the first joint solution to provide the Warfighter with the net-ready capability to measure alpha, beta, gamma, neutron, and low energy x-rays. Replaces DoD's legacy RADIAC survey meters (AN/PDR-77, VDR-2, MFR Suite, and ADM-300). The EOD DR SKO (M09988) will be used to procure select capabilities within the CBRN DR SKO capabilities for the EOD Warfighter. The CBRN DR SKO provides CBRN Warfighters with a comprehensive suite of protection, detection, identification, sample collection, hazard marking, decontamination, and other support capabilities for use during explosive ordnance render safe operations. The Warfighter will use the CBRN DRS respiratory and percutaneous protection to prevent potential contamination while conducting operations, sensor capabilities to find CBRN and toxic industrial hazards to determine the appropriate action during operations, and the decontamination kit to remove contamination from personnel and equipment. In accordance with the ADM, signed 3QFY20, EOD DRSKO and CBRN DRS were combined into a single program. Joint Personal Dosimeter Individual (JPD-I) (W43487) support the procurement of Joint Personal Dosimeter Individual (JPD-I) sensors to provide a component to passively record and retrieve a Service member's radiation exposure. The Nuclear, Biological, and Chemical Reconnaissance Vehicles (NBCRV) Sensor Suite Upgrade (SSU)(M01008) provides maneuver formations with the ability to conduct mounted reconnaissance and surveillance missions of CBRN named areas of interest (NAIs). The NBCRV SSU answers the commander's priority intelligence requirements (PIR), and facilitates proactive risk-based decisions to ensure freedom of action and survivability. A modern and capable NBCRV Sensor Suite (SS) is critical component for Joint Force success when operating in the complex CBRN environment. The NBCRV SSU replaces the legacy NBCRV Sensor Suite (SS), increasing maneuver speed and standoff detection allowing for expedited mission efficiency.

Secondary Distribution		FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026
Army	Quantity	225	210	654	-	654	-	-	-	-
	Total Obligation Authority	36.929	32.081	38.178	-	38.178	-	-	-	-
ANG	Quantity	106	2,906	1,329	-	1,329	-	-	-	-
	Total Obligation Authority	6.162	14.202	14.103	-	14.103	-	-	-	-
AR	Quantity	22	626	403	-	403	-	-	-	-

Exhibit P-40, Budget Line Item Justification: PB 2022 Army		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 10: Chemical Defensive Equipment	**P-1 Line Item Number / Title:** 4516M01001 / CBRN Defense	
ID Code (A=Service Ready, B=Not Service Ready):	**Program Elements for Code B Items:** N/A	**Other Related Program Elements:** N/A
Line Item MDAP/MAIS Code: N/A		

Secondary Distribution		FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026
	Total Obligation Authority	0.198	1.060	3.351	-	3.351	-	-	-	-
Total: Secondary Distribution	**Quantity**	**353**	**3,742**	**2,386**	**-**	**2,386**	**-**	**-**	**-**	**-**
	Total Obligation Authority	**43.289**	**47.343**	**55.632**	**-**	**55.632**	**-**	**-**	**-**	**-**

Exhibit P-40, Budget Line Item Justification: PB 2022 Army	Date: May 2021
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 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 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	M01008 / CONTAMINATION AVOIDANCE (CA)	P-5a, P-21			7,477 / 147.836	0 / -	12 / 8.273	11 / 17.233	- / -	11 / 17.233
P-5	M01011 / CONSEQUENCE MGMT (CM)				1,786 / 216.967	- / 10.693	- / -	- / -	- / -	- / -
P-5	M01280 / Radiological Detection System				2,615 / 34.309	350 / 4.211	442 / 11.289	1,362 / 11.407	- / -	1,362 / 11.407
P-5	M09988 / EOD Dismounted Reconnaissance SKO (DR SKO)	P-5a, P-21			- / -	3 / 28.385	13 / 25.794	13 / 25.164	- / -	13 / 25.164
P-5	W43487 / Joint Personal Dosimeter-Individual (JPD-I)	P-5a			- / -	- / -	3,275 / 1.987	1,000 / 1.828	- / -	1,000 / 1.828
P-40	**Total Gross/Weapon System Cost**				**11,878 / 399.112**	**353 / 43.289**	**3,742 / 47.343**	**2,386 / 55.632**	**- / -**	**2,386 / 55.632**

*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:
FY22 base procurement dollars of $55.632 million supports the following:

Contamination Avoidance (M01008):

FY22 base procurement dollars of $8.201 million supports the procurement and fielding of Man-portable Radiological Detection System (MRDS). MRDS provides increased dismounted Radiological Nuclear (RN) detection, localization, and presumptive and field-confirmatory identification of Special Nuclear Material (SNM) capabilities. The MRDS will be networked to provide a near real-time situational awareness at the tactical level. This equipment will be used to increase unit and individual survivability.

FY22 base procurement dollars of $9.032 million supports the procurement and fielding of the Stryker Nuclear Biological Chemical Reconnaissance Vehicle (NBCRV) Sensor Suite Upgrade (SSU). The Stryker NBCRV SSU modernizes the Chemical Biological Radiological Nuclear (CBRN) sensors by integrating Standoff Chemical Agent Detection, Standoff Biological Agent Detection, Radiological and Nuclear Detection, On-the-move Surface Chemical Agent Detection, and Unmanned Ground and Aerial Vehicles with CBRN payloads. The NBCRV SSU provides CBRN Mounted Reconnaissance capability to inform a commander's priority intelligence requirements to facilitate proactive risk-based decisions to ensure freedom of action and survivability.

Radiological Detection System (M01280)

FY22 Base procurement dollars of $11.407 million will supports the procurement and fielding of the Radiological Detection System as the first joint solution to provide the Warfighter with the net-ready capability to measure alpha, beta, gamma, neutron, and low energy x-rays. Replaces DoD's legacy RADIAC survey meters (AN/PDR-77, VDR-2, MFR Suite, and ADM-300). This equipment will be used to increase capability and reduce life-cycle costs, address Operation Tomodachi Lessons Learned for common, interoperable equipment with adequate sensitivity and common units of measure.

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

FY22 base procurement dollars of $25.164 million supports the procurement & fielding of 3 EOD Dismounted Reconnaissance SKO (DR SKO) systems and FY22 Base is for the procurement & fielding of 10 EOD Dismounted Reconnaissance SKO (DR SKO) systems to support the enduring requirement for Operation Counter Terrorism/Other Forces. This equipment will be used to provide CBRN Warfighters with a comprehensive suite of protection, detection, identification, sample collection, hazard marking, decontamination, and other support capabilities for use during explosive ordnance render safe operations.

Exhibit P-40, Budget Line Item Justification: PB 2022 Army		Date: May 2021
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		

The Warfighter will use the CBRN DRS respiratory and percutaneous protection to prevent potential contamination while conducting operations, sensor capabilities to find CBRN and toxic industrial hazards to determine the appropriate action during operations, and the decontamination kit to remove contamination from personnel and equipment. $18.930 million of this requirement supports the enduring requirement for Counterterrorism Operations.

Joint Personal Dosimeter Individual (W43487):

FY22 base procurement dollars of $1.817 million supports the procurement of 1000 Joint Personal Dosimeter Individual (JPD-I) sensors to provide a component to passively record and retrieve a Service member's radiation exposure. FY22 Base dollars in the amount of $.011 million supports the enduring requirement for Operation 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-5, Cost Analysis: PB 2022 Army		Date: May 2021
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 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Procurement Quantity *(Units in Each)*	7,477	0	12	11	-	11
Gross/Weapon System Cost *($ in Millions)*	147.836	-	8.273	17.233	-	17.233
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	147.836	-	8.273	17.233	-	17.233
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**147.836**	**-**	**8.273**	**17.233**	**-**	**17.233**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)						
Initial Spares *($ in Millions)*	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Thousands)*	19.772	-	689.417	1,566.636	-	1,566.636

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

Cost Elements	Prior Years			FY 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 Total		
	Unit Cost *($ K)*	Qty *(Each)*	Total Cost *($ M)*	Unit Cost *($ K)*	Qty *(Each)*	Total Cost *($ M)*	Unit Cost *($ K)*	Qty *(Each)*	Total Cost *($ M)*	Unit Cost *($ K)*	Qty *(Each)*	Total Cost *($ M)*	Unit Cost *($ K)*	Qty *(Each)*	Total Cost *($ M)*	Unit Cost *($ K)*	Qty *(Each)*	Total Cost *($ M)*
Flyaway Cost																		
Recurring Cost																		
CRESS Kits	0.334	9,971	3.330	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Com Adapter	5.885	10,192	59.978	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
JCAD	7.407	11,311	83.782	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
FY 17 OCO	-	-	0.003	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Recurring Cost	-	-	*147.093*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Non Recurring Cost																		
*ACCOUNTING ADJUSTMENT *	-	-	-90.150	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Non Recurring Cost	-	-	*-90.150*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Flyaway Cost	**-**	**-**	***56.943***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Hardware Cost																		
Recurring Cost																		
CBRN Robotic	600.692	26	15.618	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MRDS Hardware Costs(†)	776.769	13	10.098	-	-	-	528.929	14	7.405	747.000	9	6.723	-	-	-	747.000	9	6.723
Subtotal: Recurring Cost	-	-	*25.716*	-	-	-	-	-	*7.405*	-	-	*6.723*	-	-	-	-	-	*6.723*
Non Recurring Cost																		
Integrated Early Warning	-	-	40.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Exhibit P-5, Cost Analysis: PB 2022 Army		Date: May 2021
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 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 Total		
	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)
PINS	354.167	12	4.250	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RAZORS	40.625	80	3.250	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HAPSITE	203.125	16	3.250	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CBRN Robotic Radios	-	-	4.890	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
NBCRV SSU(†)	-	-	-	-	-	-	-	-	-	3,107.500	2	6.215	-	-	-	3,107.500	2	6.215
Subtotal: Non Recurring Cost	-	-	*55.640*	-	-	-	-	-	-	-	-	*6.215*	-	-	-	-	-	*6.215*
Subtotal: Hardware Cost	**-**	**-**	***81.356***	**-**	**-**	**-**	**-**	**-**	***7.405***	**-**	**-**	***12.938***	**-**	**-**	**-**	**-**	**-**	***12.938***
Package Fielding Cost																		
Recurring Cost																		
MRDS Fielding Costs	23.231	13	0.302	-	-	-	21.571	14	0.302	-	-	0.635	-	-	-	-	-	0.635
Subtotal: Recurring Cost	-	-	*0.302*	-	-	-	-	-	*0.302*	-	-	*0.635*	-	-	-	-	-	*0.635*
Non Recurring Cost																		
Fielding for CBRN Robotics	-	-	2.960	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fielding for PINS Integration	-	-	0.750	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fielding for RAZOR Integration	-	-	0.750	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fielding for HAPSITE Integration	-	-	0.750	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
JUONS CC-0557 FOB Integration to IBD-K	-	-	0.265	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Non Recurring Cost	-	-	*5.475*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Package Fielding Cost	**-**	**-**	***5.777***	**-**	**-**	**-**	**-**	**-**	***0.302***	**-**	**-**	***0.635***	**-**	**-**	**-**	**-**	**-**	***0.635***
Support - Program Management Cost																		
Government Management	-	-	3.768	-	-	-	-	-	0.566	-	-	3.660	-	-	-	-	-	3.660
Subtotal: Support - Program Management Cost	**-**	**-**	***3.768***	**-**	**-**	**-**	**-**	**-**	***0.566***	**-**	**-**	***3.660***	**-**	**-**	**-**	**-**	**-**	***3.660***
Gross/Weapon System Cost	**19.772**	**7,477**	**147.836**	**-**	**0**	**-**	**689.417**	**12**	**8.273**	**1,566.636**	**11**	**17.233**	**-**	**-**	**-**	**1,566.636**	**11**	**17.233**

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

Exhibit P-5, Cost Analysis: PB 2022 Army		Date: May 2021
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:**	

FY22 Breakout of Program Management as follows:

MRDS - Program Management and Team Support (in-house labor, travel, etc.) = $.843M
The program executed the funding line in FY20 as planned.

NBCRV - Program Management and Team Support (in-house labor, travel, etc.) = $2.817M

Secondary Distribution		FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Army	Quantity	-	6	8	-	8
	Total Obligation Authority	-	4.137	14.667	-	14.667
ANG	Quantity	-	6	2	-	2
	Total Obligation Authority	-	4.136	1.517	-	1.517
AR	Quantity	-	-	1	-	1
	Total Obligation Authority	-	-	1.049	-	1.049
Total: Secondary Distribution	**Quantity**	**0**	**12**	**11**	**-**	**11**
	Total Obligation Authority	**-**	**8.273**	**17.233**	**-**	**17.233**

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2022 Army		Date: May 2021
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
MRDS Hardware Costs(†)		2021	Mulitiple Vendors / Multiple Locations	C / FFP	Various	Mar 2021	Jul 2021	14	528.929	N		
MRDS Hardware Costs(†)		2022	Mulitiple Vendors / Multiple Locations	C / FFP	Various	Mar 2022	Jun 2022	9	747.000	N		
NBCRV SSU(†)		2022	TBD / N/a	C / CPFF	Various	Jul 2022	Jun 2023	2	3,107.500	N		

(†) indicates the presence of a P-21

Exhibit P-21, Production Schedule: PB 2022 Army		**Date:** May 2021
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 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	
MRDS Hardware Costs																															
Prior Years Deliveries: 13																															
	1	2021	ARMY	14	0	14						A -	-	-	-	5	5	4													0
	1	2022	ARMY	9	0	9																		A -	-	-	9				0
NBCRV SSU																															
	2	2022	ARMY	2	0	2																						A -	-	-	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 2022 Army		Date: May 2021
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 2023												Fiscal Year 2024												BALANCE
										Calendar Year 2023												Calendar Year 2024									
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2022	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	
MRDS Hardware Costs																															
Prior Years Deliveries: 13																															
	1	2021	ARMY	14	14	0																									0
	1	2022	ARMY	9	9	0																									0
NBCRV SSU																															
	2	2022	ARMY	2	0	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 2022 Army		Date: May 2021
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 2022	1-8-5 For 2022	MAX For 2022	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	Mulitiple Vendors - Multiple Locations	1	14	28	0	0	0	0	0	0	0	0
2	TBD - N/a	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 2022 Army		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 10	**P-1 Line Item Number / Title:** 4516M01001 / CBRN Defense	**Item Number / Title [DODIC]:** M01011 / CONSEQUENCE MGMT (CM)
ID Code (A=Service Ready, B=Not Service Ready) :	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Procurement Quantity *(Units in Each)*	1,786	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	216.967	10.693	-	-	-	-
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	216.967	10.693	-	-	-	-
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**216.967**	**10.693**	**-**	**-**	**-**	**-**
(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)*	121.482	-	-	-	-	-

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

Cost Elements	Prior Years			FY 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 Total		
	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	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	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PPE Suit NFPA Class 3	3.679	7,155	26.322	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HAZMAT Boots	0.066	3,890	0.258	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Filter Canisters	0.045	6,968	0.317	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
JUONS CC-0557 FOB Integration to IBD-K	-	-	2.060	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PDR-75A Dosimeter - Congressional Add	1.333	9,000	12.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mass Personnel Decontamination (MPD) Systems/Push Package	-	-	6.463	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
*ACCOUNTING ADJUSTMENT	-	-	141.526	-	-	10.693	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Non Recurring Cost	-	-	*212.806*	-	-	*10.693*	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Flyaway Cost	**-**	**-**	***212.806***	**-**	**-**	***10.693***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Package Fielding Cost																		
Non Recurring Cost																		
PDR-75A Fielding	-	-	1.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Exhibit P-5, Cost Analysis: PB 2022 Army		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 10	**P-1 Line Item Number / Title:** 4516M01001 / CBRN Defense	**Item Number / Title [DODIC]:** M01011 / CONSEQUENCE MGMT (CM)
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 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 Total		
	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	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: Non Recurring Cost	-	-	*1.000*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Package Fielding Cost	**-**	**-**	***1.000***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Support - Contractor Logistics Support (CLS) Cost																		
Oversight	-	-	1.802	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Support - Contractor Logistics Support (CLS) Cost	**-**	**-**	***1.802***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Support - Program Management Cost																		
Government Management	-	-	0.300	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Contractor Management	-	-	0.212	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Support - Program Management Cost	**-**	**-**	***0.512***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Support - Staging and Transportation Cost																		
Staging and Transportation	-	-	0.853	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Support - Staging and Transportation Cost	**-**	**-**	***0.853***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Gross/Weapon System Cost	**121.482**	**1,786**	**216.967**	**-**	**-**	**10.693**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**

Secondary Distribution		FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Army	Quantity	-	-	-	-	-
	Total Obligation Authority	10.693	-	-	-	-
Total: Secondary Distribution	**Quantity**	**-**	**-**	**-**	**-**	**-**
	Total Obligation Authority	**10.693**	**-**	**-**	**-**	**-**

Exhibit P-5, Cost Analysis: PB 2022 Army		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 10	**P-1 Line Item Number / Title:** 4516M01001 / CBRN Defense	**Item Number / Title [DODIC]:** M01280 / Radiological Detection System
ID Code (A=Service Ready, B=Not Service Ready) :	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Procurement Quantity *(Units in Each)*	2,615	350	442	1,362	-	1,362
Gross/Weapon System Cost *($ in Millions)*	34.309	4.211	11.289	11.407	-	11.407
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	34.309	4.211	11.289	11.407	-	11.407
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**34.309**	**4.211**	**11.289**	**11.407**	**-**	**11.407**
(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)*	13.120	12.031	25.541	8.375	-	8.375

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

Cost Elements	Prior Years			FY 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 Total		
	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)
Flyaway Cost																		
Recurring Cost																		
AN/PDR-77 Hardware	3.443	440	1.515	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Engineering Support	-	-	0.014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
JPD- I	-	-	-	0.256	5,990	1.534	-	-	-	-	-	-	-	-	-	-	-	-
Radiological Detection System Hardware Config 1	1.630	1,546	2.520	-	-	-	-	-	-	2.501	957	2.393	-	-	-	2.501	957	2.393
Radiological Detection System Hardware Config 2	16.460	274	4.510	-	-	-	21.000	379	7.959	14.375	405	5.822	-	-	-	14.375	405	5.822
Radiological Detection System Hardware Config 3	19.274	795	15.323	-	-	-	23.000	60	1.380	-	-	-	-	-	-	-	-	-
Radiological Detection System Warranty	-	-	3.647	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Recurring Cost	-	-	*27.529*	-	-	*1.534*	-	-	*9.339*	-	-	*8.215*	-	-	-	-	-	*8.215*
Subtotal: Flyaway Cost	**-**	**-**	***27.529***	**-**	**-**	***1.534***	**-**	**-**	***9.339***	**-**	**-**	***8.215***	**-**	**-**	**-**	**-**	**-**	***8.215***
Package Fielding Cost																		
Recurring Cost																		
Logistics Support JPD	-	-	1.033	-	-	0.050	-	-	-	-	-	0.100	-	-	-	-	-	0.100
Subtotal: Recurring Cost	-	-	*1.033*	-	-	*0.050*	-	-	-	-	-	*0.100*	-	-	-	-	-	*0.100*
Non Recurring Cost																		
Fielding Cost RDS	-	-	1.189	-	-	-	-	-	0.300	-	-	0.200	-	-	-	-	-	0.200

Exhibit P-5, Cost Analysis: PB 2022 Army		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 10	P-1 Line Item Number / Title: 4516M01001 / CBRN Defense	Item Number / Title [DODIC]: M01280 / Radiological Detection System
ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:	

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

Cost Elements	Prior Years			FY 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 Total		
	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)
Fielding Cost JPD-I	-	-	-	-	-	0.150	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Non Recurring Cost	-	-	*1.189*	-	-	*0.150*	-	-	*0.300*	-	-	*0.200*	-	-	-	-	-	*0.200*
Subtotal: Package Fielding Cost	**-**	**-**	***2.222***	**-**	**-**	***0.200***	**-**	**-**	***0.300***	**-**	**-**	***0.300***	**-**	**-**	**-**	**-**	**-**	***0.300***
Support - Production Engineering Cost																		
Production Engineering	-	-	0.934	-	-	-	-	-	-	-	-	0.276	-	-	-	-	-	0.276
Subtotal: Support - Production Engineering Cost	**-**	**-**	***0.934***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***0.276***	**-**	**-**	**-**	**-**	**-**	***0.276***
Support - Program Management Cost																		
Government Management	-	-	2.352	-	-	2.478	-	-	1.159	-	-	1.742	-	-	-	-	-	1.742
Subtotal: Support - Program Management Cost	**-**	**-**	***2.352***	**-**	**-**	***2.478***	**-**	**-**	***1.159***	**-**	**-**	***1.742***	**-**	**-**	**-**	**-**	**-**	***1.742***
Support - Quality Assurance Cost																		
Quality Assurance	-	-	1.272	-	-	-	-	-	0.491	-	-	0.874	-	-	-	-	-	0.874
Subtotal: Support - Quality Assurance Cost	**-**	**-**	***1.272***	**-**	**-**	**-**	**-**	**-**	***0.491***	**-**	**-**	***0.874***	**-**	**-**	**-**	**-**	**-**	***0.874***
Gross/Weapon System Cost	**13.120**	**2,615**	**34.309**	**12.031**	**350**	**4.211**	**25.541**	**442**	**11.289**	**8.375**	**1,362**	**11.407**	**-**	**-**	**-**	**8.375**	**1,362**	**11.407**

Secondary Distribution		FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Army	Quantity	225	194	636	-	636
	Total Obligation Authority	3.086	9.057	4.650	-	4.650
ANG	Quantity	103	167	507	-	507
	Total Obligation Authority	0.927	1.503	4.786	-	4.786
AR	Quantity	22	81	219	-	219
	Total Obligation Authority	0.198	0.729	1.971	-	1.971
Total: Secondary Distribution	**Quantity**	**350**	**442**	**1,362**	**-**	**1,362**
	Total Obligation Authority	**4.211**	**11.289**	**11.407**	**-**	**11.407**

Exhibit P-5, Cost Analysis: PB 2022 Army		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 10	**P-1 Line Item Number / Title:** 4516M01001 / CBRN Defense	**Item Number / Title [DODIC]:** M09988 / EOD Dismounted Reconnaissance SKO (DR SKO)
ID Code (A=Service Ready, B=Not Service Ready) :	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Procurement Quantity *(Units in Each)*	-	3	13	13	-	13
Gross/Weapon System Cost *($ in Millions)*	-	28.385	25.794	25.164	-	25.164
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	-	28.385	25.794	25.164	-	25.164
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**-**	**28.385**	**25.794**	**25.164**	**-**	**25.164**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)						
Initial Spares *($ in Millions)*	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Thousands)*	-	9,461.667	1,984.154	1,935.692	-	1,935.692

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

Cost Elements	Prior Years			FY 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 Total		
	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)
Hardware Cost																		
Recurring Cost																		
CBRND DRS EOD Configuration(†)	-	-	-	2,183.462	13	28.385	-	-	-	-	-	-	-	-	-	-	-	-
ARMY EOD DR SKO Configuration(†)	-	-	-	-	-	-	1,807.538	13	23.498	1,761.154	13	22.895	-	-	-	1,761.154	13	22.895
Subtotal: Recurring Cost	-	-	-	-	-	*28.385*	-	-	*23.498*	-	-	*22.895*	-	-	-	-	-	*22.895*
Subtotal: Hardware Cost	**-**	**-**	**-**	**-**	**-**	***28.385***	**-**	**-**	***23.498***	**-**	**-**	***22.895***	**-**	**-**	**-**	**-**	**-**	***22.895***
Package Fielding Cost																		
Recurring Cost																		
Fielding, New Equipment and Doctrine & Tactics Training (DTT)	-	-	-	-	-	-	-	-	0.840	-	-	1.007	-	-	-	-	-	1.007
Subtotal: Recurring Cost	-	-	-	-	-	-	-	-	*0.840*	-	-	*1.007*	-	-	-	-	-	*1.007*
Subtotal: Package Fielding Cost	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***0.840***	**-**	**-**	***1.007***	**-**	**-**	**-**	**-**	**-**	***1.007***
Logistics Cost																		
Recurring Cost																		
Logistics Support	-	-	-	-	-	-	-	-	0.547	-	-	0.505	-	-	-	-	-	0.505
Subtotal: Recurring Cost	-	-	-	-	-	-	-	-	*0.547*	-	-	*0.505*	-	-	-	-	-	*0.505*
Subtotal: Logistics Cost	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***0.547***	**-**	**-**	***0.505***	**-**	**-**	**-**	**-**	**-**	***0.505***

Exhibit P-5, Cost Analysis: PB 2022 Army		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 10	**P-1 Line Item Number / Title:** 4516M01001 / CBRN Defense	**Item Number / Title [DODIC]:** M09988 / EOD Dismounted Reconnaissance SKO (DR SKO)
ID Code (A=Service Ready, B=Not Service Ready) :	**MDAP/MAIS Code:**	

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

Cost Elements	Prior Years			FY 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 Total		
	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)
Support - Program Management Cost																		
Government Management	-	-	-	-	-	-	-	-	0.909	-	-	0.757	-	-	-	-	-	0.757
Subtotal: Support - Program Management Cost	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***0.909***	**-**	**-**	***0.757***	**-**	**-**	**-**	**-**	**-**	***0.757***
Gross/Weapon System Cost	**-**	**-**	**-**	**9,461.667**	**3**	**28.385**	**1,984.154**	**13**	**25.794**	**1,935.692**	**13**	**25.164**	**-**	**-**	**-**	**1,935.692**	**13**	**25.164**

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

Secondary Distribution		FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Army	Quantity	-	10	10	-	10
	Total Obligation Authority	23.150	18.887	18.850	-	18.850
ANG	Quantity	3	3	3	-	3
	Total Obligation Authority	5.235	6.907	6.314	-	6.314
Total: Secondary Distribution	**Quantity**	**3**	**13**	**13**	**-**	**13**
	Total Obligation Authority	**28.385**	**25.794**	**25.164**	**-**	**25.164**

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2022 Army		**Date:** May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 10	**P-1 Line Item Number / Title:** 4516M01001 / CBRN Defense	**Item Number / Title [DODIC]:** M09988 / EOD Dismounted Reconnaissance SKO (DR SKO)

Cost Elements	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
CBRND DRS EOD Configuration		2020	Pine Bluff Arsenal / Pine Bluff, Arkansas	MIPR	Pine Bluff Arsenal, Pine Bluff, AR	Jan 2020	Aug 2020	13	2,183.462	Y		
ARMY EOD DR SKO Configuration(†)		2021	Pine Bluff Arsenal / Pine Bluff, Arkansas	MIPR	Pine Bluff Arsenal, Pine Bluff, AR	Jan 2021	Jun 2021	13	1,807.538	Y		
ARMY EOD DR SKO Configuration(†)		2022	Pine Bluff Arsenal / Pine Bluff, Arkansas	MIPR	Pine Bluff Arsenal, Pine Bluff, AR	Jan 2022	Jun 2022	13	1,761.154	Y		

(†) indicates the presence of a P-21

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

Exhibit P-21, Production Schedule: PB 2022 Army		**Date:** May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 10	**P-1 Line Item Number / Title:** 4516M01001 / CBRN Defense	**Item Number / Title [DODIC]:** M09988 / EOD Dismounted Reconnaissance SKO (DR SKO)

Cost Elements (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	
ARMY EOD DR SKO Configuration																															
	1	2021	ARMY	13	0	13																A -	-	-	-	-	3	4	4	2	0
	1	2022	ARMY	13	0	13																									13
							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 2022 Army		**Date:** May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 10	**P-1 Line Item Number / Title:** 4516M01001 / CBRN Defense	**Item Number / Title [DODIC]:** M09988 / EOD Dismounted Reconnaissance SKO (DR SKO)

Cost Elements (Units in Each)							Fiscal Year 2022												Fiscal Year 2023												BALANCE
										Calendar Year 2022												Calendar Year 2023									
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2021	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	
ARMY EOD DR SKO Configuration																															
	1	2021	ARMY	13	13	0																									0
	1	2022	ARMY	13	0	13				A -	-	-	-	-	3	3	3	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 2022 Army		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 10	**P-1 Line Item Number / Title:** 4516M01001 / CBRN Defense	**Item Number / Title [DODIC]:** M09988 / EOD Dismounted Reconnaissance SKO (DR SKO)

MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Month)			Procurement Leadtime (Months)							
					Initial				Reorder			
		MSR For 2022	1-8-5 For 2022	MAX For 2022	ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1	ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1
1	Pine Bluff Arsenal - Pine Bluff, Arkansas	1	6	20	0	5	8	13	0	5	5	10

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

Exhibit P-5, Cost Analysis: PB 2022 Army		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 10	**P-1 Line Item Number / Title:** 4516M01001 / CBRN Defense	**Item Number / Title [DODIC]:** W43487 / Joint Personal Dosimeter-Individual (JPD-I)
ID Code (A=Service Ready, B=Not Service Ready) :	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Procurement Quantity *(Units in Each)*	-	-	3,275	1,000	-	1,000
Gross/Weapon System Cost *($ in Millions)*	-	-	1.987	1.828	-	1.828
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	-	-	1.987	1.828	-	1.828
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**-**	**-**	**1.987**	**1.828**	**-**	**1.828**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)						
Initial Spares *($ in Millions)*	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Thousands)*	-	-	0.607	1.828	-	1.828

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

Cost Elements	Prior Years			FY 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 Total		
	Unit Cost *($ K)*	Qty *(Each)*	Total Cost *($ M)*	Unit Cost *($ K)*	Qty *(Each)*	Total Cost *($ M)*	Unit Cost *($ K)*	Qty *(Each)*	Total Cost *($ M)*	Unit Cost *($ K)*	Qty *(Each)*	Total Cost *($ M)*	Unit Cost *($ K)*	Qty *(Each)*	Total Cost *($ M)*	Unit Cost *($ K)*	Qty *(Each)*	Total Cost *($ M)*
Hardware Cost																		
Recurring Cost																		
JPD-I(†)	-	-	-	-	-	-	0.600	1,100	0.660	0.594	1,000	0.594	-	-	-	0.594	1,000	0.594
Subtotal: Recurring Cost	-	-	-	-	-	-	-	-	*0.660*	-	-	*0.594*	-	-	-	-	-	*0.594*
Subtotal: Hardware Cost	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***0.660***	**-**	**-**	***0.594***	**-**	**-**	**-**	**-**	**-**	***0.594***
Package Fielding Cost																		
Recurring Cost																		
FIelding Support	-	-	-	-	-	-	-	-	0.400	-	-	0.350	-	-	-	-	-	0.350
Subtotal: Recurring Cost	-	-	-	-	-	-	-	-	*0.400*	-	-	*0.350*	-	-	-	-	-	*0.350*
Subtotal: Package Fielding Cost	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***0.400***	**-**	**-**	***0.350***	**-**	**-**	**-**	**-**	**-**	***0.350***
Logistics Cost																		
Recurring Cost																		
Logistics Support	-	-	-	-	-	-	-	-	0.225	-	-	0.225	-	-	-	-	-	0.225
Subtotal: Recurring Cost	-	-	-	-	-	-	-	-	*0.225*	-	-	*0.225*	-	-	-	-	-	*0.225*
Subtotal: Logistics Cost	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***0.225***	**-**	**-**	***0.225***	**-**	**-**	**-**	**-**	**-**	***0.225***
Support - Program Management Cost																		
Government Management	-	-	-	-	-	-	-	-	0.702	-	-	0.659	-	-	-	-	-	0.659
Subtotal: Support - Program Management Cost	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***0.702***	**-**	**-**	***0.659***	**-**	**-**	**-**	**-**	**-**	***0.659***

Exhibit P-5, Cost Analysis: PB 2022 Army		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 10	**P-1 Line Item Number / Title:** 4516M01001 / CBRN Defense	**Item Number / Title [DODIC]:** W43487 / Joint Personal Dosimeter-Individual (JPD-I)
ID Code (A=Service Ready, B=Not Service Ready) :	**MDAP/MAIS Code:**	

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

Cost Elements	Prior Years			FY 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 Total		
	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)
Gross/Weapon System Cost	-	-	-	-	-	-	0.607	3,275	1.987	1.828	1,000	1.828	-	-	-	1.828	1,000	1.828

Remarks:
JPD-I received Chemical and Biological Defense Program (CBDP) funding in FY19 and FY20 to share program management and logistics costs as well as reduce unit price due to higher quantities ordered. In FY21 and beyond JPD-I received no CBDP funding. Original submission for FY21 was based on the premise that CBDP funding would be received (CBDP program funding was cut after FY21 P-Form submission).

Secondary Distribution		FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Army	Quantity	-	-	-	-	-
	Total Obligation Authority	-	-	0.011	-	0.011
ANG	Quantity	-	2,730	817	-	817
	Total Obligation Authority	-	1.656	1.486	-	1.486
AR	Quantity	-	545	183	-	183
	Total Obligation Authority	-	0.331	0.331	-	0.331
Total: Secondary Distribution	**Quantity**	**-**	**3,275**	**1,000**	**-**	**1,000**
	Total Obligation Authority	**-**	**1.987**	**1.828**	**-**	**1.828**

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2022 Army		**Date:** May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 10	**P-1 Line Item Number / Title:** 4516M01001 / CBRN Defense	**Item Number / Title [DODIC]:** W43487 / Joint Personal Dosimeter-Individual (JPD-I)

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
JPD-I		2021	Mirion Technologies / Smryna, GA	Option / FFP	Aberdeen Proving Grounds	Apr 2021	Aug 2021	1,100	0.600	Y		
JPD-I		2022	Mirion Technologies / Smryna, GA	Option / FFP	Aberdeen Proving Grounds	Apr 2022	Aug 2022	1,000	0.594	Y		

Exhibit P-40, Budget Line Item Justification: PB 2022 Army	Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 10: Chemical Defensive Equipment	**P-1 Line Item Number / Title:** 6230MX0600 / Smoke & Obscurant Family: SOF (Non AAO Item)

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

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026	To Complete	Total
Procurement Quantity *(Units in Each)*	-	36	100	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	11.297	5.050	13.995	-	-	-	-	-	-	-	-	-
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	11.297	5.050	13.995	-	-	-	-	-	-	-	-	-
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**11.297**	**5.050**	**13.995**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
(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)*	-	140.278	139.950	-	-	-	-	-	-	-	-	-

Description:

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

Secondary Distribution		FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026
Army	Quantity	36	100	-	-	-	-	-	-	-
	Total Obligation Authority	5.050	13.995	-	-	-	-	-	-	-
Total: Secondary Distribution	**Quantity**	**36**	**100**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
	Total Obligation Authority	**5.050**	**13.995**	**-**	**-**	**-**	**-**	**-**	**-**	**-**

Justification:
MX0600 has no FY2022 funding request.

Exhibit P-40, Budget Line Item Justification: PB 2022 Army	Date: May 2021
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 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026	To Complete	Total
Procurement Quantity *(Units in Each)*	107	42	19	1	-	1	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	163.447	64.705	60.945	9.625	-	9.625	-	-	-	-	-	-
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	163.447	64.705	60.945	9.625	-	9.625	-	-	-	-	-	-
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**163.447**	**64.705**	**60.945**	**9.625**	**-**	**9.625**	**-**	**-**	**-**	**-**	**-**	**-**
(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)*	1,527.542	1,540.595	3,207.632	9,625.000	-	9.625.000	-	-	-	-	-	-

Description:

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

The LOCB system provides a 50 meter dry gap crossing capability and a 130 meter wet gap crossing capability. The LOCB 50 meter dry gap system includes bridge components, ramps, pier sets and associated equipment. The 130 meter float LOCB system consists of the same bridge components as the 50 meter LOCB as well as additional items to support wet-gap crossings to include pontoons and associated equipment. Dry and wet gap spans can be linked together to accommodate various crossing lengths. FY18 thru FY 21 procurement funding will be used in support of All Things Pacific (ATP) ONS 18-22760 and All Things Europe (ATE) requirements. Program of Record (POR) production will begin in FY21. The Program of Record requirement is 10 training sets of 50 meter fixed LOCBs and 2 training sets of 130 meter floating LOCB.

LOCB All Things Pacific ONS Requirement: 198
LOCB All Things Europe ONS Requirement: 82
LOCB Army Acquisition Objective (AAO): 12

Secondary Distribution		FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026
Army	Quantity	42	5	-	-	-	-	-	-	-
	Total Obligation Authority	64.705	59.673	-	-	-	-	-	-	-
ANG	Quantity	-	10	1	-	1	-	-	-	-
	Total Obligation Authority	-	0.909	9.625	-	9.625	-	-	-	-
AR	Quantity	-	4	-	-	-	-	-	-	-
	Total Obligation Authority	-	0.363	-	-	-	-	-	-	-

Exhibit P-40, Budget Line Item Justification: PB 2022 Army			Date: May 2021
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 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026
Total: Secondary Distribution	Quantity	42	19	1	-	1	-	-	-	-
	Total Obligation Authority	64.705	60.945	9.625	-	9.625	-	-	-	-

Exhibit P-40, Budget Line Item Justification: PB 2022 Army		Date: May 2021
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 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/ MAIS Code	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*
P-5	G82404 / LINE OF COMMUNICATION BRIDGE LOCB	P-5a			107 / 163.447	42 / 64.705	19 / 60.945	1 / 9.625	- / -	1 / 9.625
P-40	**Total Gross/Weapon System Cost**				**107 / 163.447**	**42 / 64.705**	**19 / 60.945**	**1 / 9.625**	**- / -**	**1 / 9.625**

*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 2022 Base procurement dollars in the amount of $9.625 million supports the procurement of 1ea Type II 130 meter wet gap 120 Tracked/150 Wheeled MLC LOCB set in support of Program of Record (POR) requirements.

P-40 Procurement Quantity is displayed incorrectly in FY 2021. Correct Procurement Quantity should be 26 in FY 2021.

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

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 2022 Army		Date: May 2021
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 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Procurement Quantity *(Units in Each)*	107	42	19	1	-	1
Gross/Weapon System Cost *($ in Millions)*	163.447	64.705	60.945	9.625	-	9.625
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	163.447	64.705	60.945	9.625	-	9.625
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**163.447**	**64.705**	**60.945**	**9.625**	**-**	**9.625**
(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)*	1,527.542	1,540.595	3,207.632	9,625.000	-	9,625.000

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

Cost Elements	Prior Years			FY 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 Total		
	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)
Flyaway Cost																		
Recurring Cost																		
All Things Pacific - ONS Commercial LOCB 50m Dry MLC120/150 Spans(†)	1,001.091	55	55.060	1,134.563	16	18.153	-	-	-	-	-	-	-	-	-	-	-	-
All Things Pacific - ONS Commercial LOCB 40m Wet MLC120/150 Spans	604.365	63	38.075	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
All Things Pacific - ONS Commercial LOCB 160m Wet MLC120/150 Spans	-	-	-	4,746.000	1	4.746	-	-	-	-	-	-	-	-	-	-	-	-
All Things Europe - ONS Commercial LOCB 50m Dry MLC120/150 Spans(†)	895.000	1	0.895	1,125.095	21	23.627	1,252.294	17	21.289	-	-	-	-	-	-	-	-	-
All Things Europe - ONS Commercial LOCB 130m Wet MLC120/150 Spans(†)	4,559.000	1	4.559	4,100.250	4	16.401	4,133.857	7	28.937	-	-	-	-	-	-	-	-	-
Program of Record - Commercial LOCB 50m Dry MLC120/150 Spans(†)	-	-	-	-	-	-	1,500.000	1	1.500	-	-	-	-	-	-	-	-	-

Exhibit P-5, Cost Analysis: PB 2022 Army		Date: May 2021
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 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 Total		
	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)
Program of Record - Commercial LOCB 130m Wet MLC120/150 Spans(†)	-	-	-	-	-	-	4,694.000	1	4.694	4,719.000	1	4.719	-	-	-	4,719.000	1	4.719
System Engineering/ Program Management	-	-	4.510	-	-	0.956	-	-	0.977	-	-	0.998	-	-	-	-	-	0.998
Logistics Support Package / Training & Tech Manual Development	-	-	-	-	-	-	-	-	3.000	-	-	3.573	-	-	-	-	-	3.573
FDT	-	-	0.450	-	-	0.085	-	-	0.079	-	-	0.044	-	-	-	-	-	0.044
Fielding	-	-	0.958	-	-	0.350	-	-	0.300	-	-	0.291	-	-	-	-	-	0.291
Subtotal: Recurring Cost	-	-	*104.507*	-	-	*64.318*	-	-	*60.776*	-	-	*9.625*	-	-	-	-	-	*9.625*
Subtotal: Flyaway Cost	**-**	**-**	***104.507***	**-**	**-**	***64.318***	**-**	**-**	***60.776***	**-**	**-**	***9.625***	**-**	**-**	**-**	**-**	**-**	***9.625***
Hardware Cost																		
Non Recurring Cost																		
Prior Acquisition Strategy - LOCB Fixed Bridge	-	-	30.741	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
All Things Pacific - ONS Commercial LOCB 40m MLC80/110 Spans	762.135	37	28.199	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LOCB MLC120/150 Test Asset Overhauls (2x130m Wet Gaps)	-	-	-	-	-	0.387	-	-	0.169	-	-	-	-	-	-	-	-	-
Subtotal: Non Recurring Cost	-	-	*58.940*	-	-	*0.387*	-	-	*0.169*	-	-	-	-	-	-	-	-	-
Subtotal: Hardware Cost	**-**	**-**	***58.940***	**-**	**-**	***0.387***	**-**	**-**	***0.169***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Gross/Weapon System Cost	**1,527.542**	**107**	**163.447**	**1,540.595**	**42**	**64.705**	**3,207.632**	**19**	**60.945**	**9,625.000**	**1**	**9.625**	**-**	**-**	**-**	**9,625.000**	**1**	**9.625**

Remarks:
P-40 Quantities are displayed incorrectly for FY 2021 and FY 2022. Correct Quantities should be total of 25 in FY 2021 and total of 1 in FY 2022.

Secondary Distribution		FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Army	Quantity	42	5	-	-	-
	Total Obligation Authority	64.705	59.673	-	-	-

Exhibit P-5, Cost Analysis: PB 2022 Army		Date: May 2021
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:**	

Secondary Distribution		FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
ANG	Quantity	-	10	1	-	1
	Total Obligation Authority	-	0.909	9.625	-	9.625
AR	Quantity	-	4	-	-	-
	Total Obligation Authority	-	0.363	-	-	-
Total: Secondary Distribution	**Quantity**	**42**	**19**	**1**	**-**	**1**
	Total Obligation Authority	**64.705**	**60.945**	**9.625**	**-**	**9.625**

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2022 Army		Date: May 2021
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
All Things Pacific - ONS Commercial LOCB 50m Dry MLC120/150 Spans		2020	Acrow Corporation of America / Parsippany, NJ	C / FFP	TACOM, Warren, MI	Aug 2020	Jan 2021	16	1,134.563	Y		
All Things Europe - ONS Commercial LOCB 50m Dry MLC120/150 Spans		2020	Acrow Global Limited (AGL) / Lydney, UK	C / FFP	TACOM, Warren, MI	Aug 2020	Dec 2020	21	1,125.095	Y		
All Things Europe - ONS Commercial LOCB 50m Dry MLC120/150 Spans	✓	2021	Acrow Global Limited (AGL) / Lydney, UK	C / FFP	TACOM, Warren, MI	Mar 2021	Sep 2021	5	1,258.000	Y		
All Things Europe - ONS Commercial LOCB 50m Dry MLC120/150 Spans	✓	2021	Acrow Corporation of America / Parsippany, NJ	C / FFP	TACOM, Warren, MI	Mar 2021	Sep 2021	12	1,249.000	Y		
All Things Europe - ONS Commercial LOCB 130m Wet MLC120/150 Spans		2020	Acrow Global Limited (AGL) / Lydney, UK	C / FFP	TACOM, Warren, MI	Aug 2020	Nov 2020	4	4,100.250	Y		
All Things Europe - ONS Commercial LOCB 130m Wet MLC120/150 Spans	✓	2021	Acrow Corporation of America / Parsippany, NJ	C / FFP	TACOM, Warren, MI	Mar 2021	Sep 2021	7	4,133.857	Y		
Program of Record - Commercial LOCB 50m Dry MLC120/150 Spans		2021	TBD / TBD	C / FFP	TACOM, Warren, MI	Aug 2021	Feb 2022	1	1,500.000	Y		
Program of Record - Commercial LOCB 130m Wet MLC120/150 Spans		2021	TBD / TBD	C / FFP	TACOM, Warren, MI	Aug 2021	Feb 2022	1	4,694.000	Y		
Program of Record - Commercial LOCB 130m Wet MLC120/150 Spans		2022	TBD / TBD	C / FFP	TACOM, Warren, MI	Feb 2022	Aug 2022	1	4,719.000	Y		

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

Exhibit P-40, Budget Line Item Justification: PB 2022 Army	Date: May 2021
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 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	277.963	57.661	72.074	76.082	-	76.082	-	-	-	-	-	-
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	277.963	57.661	72.074	76.082	-	76.082	-	-	-	-	-	-
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**277.963**	**57.661**	**72.074**	**76.082**	**-**	**76.082**	**-**	**-**	**-**	**-**	**-**	**-**
(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 Tactical Bridge Float-Ribbon line supports the Army's Multi-Role Bridging Companies (MRBCs). One Tactical Float Ribbon Bridge System consists of Improved Ribbon Bridge (IRB) bays (30 Interior and 12 Ramp), 14 Propulsion, Bridge Erection Boats (BEBs) and 56 Common Bridge Transporters (CBTs). These components are required to transport, launch, erect and retrieve up to 210 meters of floating bridge. The IRB has a Military Load Classification (MLC) 96 wheeled (normal) and 110 (caution)/MLC 70 tracked (normal) and 85 (caution) and is used to transport weapon systems, Troops and supplies over water when permanent bridges are not available. The M15 Bridge Adapter Pallet (BAP) is used to adapt the Common Bridge Transporter (CBT) for transport of the Improved Ribbon Bridge (IRB) and M30 Bridge Erection Boat. This capability will support the Joint Force Commander's ability to employ and sustain forces throughout the global battlespace.

The Propulsion, Bridge Erection Boat (BEB) Army Acquisition Objective (AAO) is 491.

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

Secondary Distribution		FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026
Army	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	24.849	-	35.020	-	35.020	-	-	-	-
ANG	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	16.406	46.464	23.953	-	23.953	-	-	-	-
AR	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	16.406	25.610	17.109	-	17.109	-	-	-	-
Total: Secondary Distribution	**Quantity**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
	Total Obligation Authority	**57.661**	**72.074**	**76.082**	**-**	**76.082**	**-**	**-**	**-**	**-**

Exhibit P-40, Budget Line Item Justification: PB 2022 Army		Date: May 2021
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 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/ MAIS Code	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*
P-5	M27200 / BRIDGE, FLOAT-RIBBON, PROPULSION	P-5a, P-21	A		- / 277.963	- / 57.661	- / 72.074	- / 76.082	- / -	- / 76.082
P-40	**Total Gross/Weapon System Cost**				**- / 277.963**	**- / 57.661**	**- / 72.074**	**- / 76.082**	**- / -**	**- / 76.082**

*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 2022 Base procurement dollars in the amount of $66.158 million supports the procurement of 76 Propulsion, Bridge Erection Boats (BEBs) for Active Army, Army National Guard and Army Reserve requirements.

FY 2022 Base procurement dollars in the amount of $9.924 million supports the procurement of 12 Propulsion, Bridge Erection Boats (BEBs) to support the Enduring Requirement for Operation European Deterrence Initiative.

The newly designed BEB will improve fleet readiness by improving the basic design to meet current survivability, transportability, and interoperability 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 2022 Army		Date: May 2021
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 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	277.963	57.661	72.074	76.082	-	76.082
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	277.963	57.661	72.074	76.082	-	76.082
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**277.963**	**57.661**	**72.074**	**76.082**	**-**	**76.082**
(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 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 Total		
	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)
Flyaway Cost																		
Recurring Cost																		
BEB + CPK Hardware(†)	1,118.149	188	210.212	697.667	72	50.232	731.069	87	63.603	745.909	88	65.640	-	-	-	745.909	88	65.640
Bridge Adapter Pallet(†)	50.910	188	9.571	53.583	72	3.858	55.126	87	4.796	67.534	88	5.943	-	-	-	67.534	88	5.943
Fielding	-	-	3.904	-	-	1.281	-	-	1.293	-	-	1.880	-	-	-	-	-	1.880
System Test & Evaluation, Production	-	-	16.776	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
System Engineering/ Program Management	-	-	15.889	-	-	1.487	-	-	1.520	-	-	1.633	-	-	-	-	-	1.633
Engineering Changes	-	-	6.943	-	-	-	-	-	-	-	-	0.100	-	-	-	-	-	0.100
First Destination Transportation - FDT	-	-	3.757	-	-	0.803	-	-	0.862	-	-	0.886	-	-	-	-	-	0.886
Subtotal: Recurring Cost	-	-	*267.052*	-	-	*57.661*	-	-	*72.074*	-	-	*76.082*	-	-	-	-	-	*76.082*
Non Recurring Cost																		
Data	-	-	10.911	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Non Recurring Cost	-	-	*10.911*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Flyaway Cost	**-**	**-**	***277.963***	**-**	**-**	***57.661***	**-**	**-**	***72.074***	**-**	**-**	***76.082***	**-**	**-**	**-**	**-**	**-**	***76.082***
Gross/Weapon System Cost	**-**	**-**	**277.963**	**-**	**-**	**57.661**	**-**	**-**	**72.074**	**-**	**-**	**76.082**	**-**	**-**	**-**	**-**	**-**	**76.082**

Exhibit P-5, Cost Analysis: PB 2022 Army		Date: May 2021
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:**	

Remarks:
Note: FY22 P-40 quantities are not correct and should reflect production of 88 BEBs. Program quantities, cost and production information is correctly indicated on P5 and P21.

Secondary Distribution		FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Army	Quantity	-	-	-	-	-
	Total Obligation Authority	24.849	-	35.020	-	35.020
ANG	Quantity	-	-	-	-	-
	Total Obligation Authority	16.406	46.464	23.953	-	23.953
AR	Quantity	-	-	-	-	-
	Total Obligation Authority	16.406	25.610	17.109	-	17.109
Total: Secondary Distribution	**Quantity**	**-**	**-**	**-**	**-**	**-**
	Total Obligation Authority	**57.661**	**72.074**	**76.082**	**-**	**76.082**

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2022 Army		Date: May 2021
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(†)		2020	Birdon America Inc / Denver, CO	C / FFP	TACOM, Warren, MI	Dec 2019	Jun 2020	72	697.667	Y		
BEB + CPK Hardware(†)		2021	Birdon America Inc / Denver, CO	C / FFP	TACOM, Warren, MI	Dec 2020	Jun 2021	87	731.069	Y		
BEB + CPK Hardware(†)		2022	Birdon America Inc / Denver, CO	C / FFP	TACOM, Warren, MI	Dec 2021	Jun 2022	88	745.909	Y		
Bridge Adapter Pallet(†)		2020	CANADIAN COMMERCIAL CORPORATIO / Ottawa, Canada	C / FFP	TACOM, Warren, MI	Dec 2019	Apr 2020	72	53.583	Y		
Bridge Adapter Pallet(†)		2021	CANADIAN COMMERCIAL CORPORATIO / Ottawa, Canada	C / FFP	TACOM, Warren, MI	Dec 2020	Apr 2021	87	55.126	Y		
Bridge Adapter Pallet(†)		2022	CANADIAN COMMERCIAL CORPORATIO / Ottawa, Canada	C / FFP	TACOM, Warren, MI	Dec 2021	Apr 2022	88	67.534	Y		

(†) indicates the presence of a P-21

Remarks:
Note: FY22 P-40 quantities are not correct and should reflect production of 88 BEBs. Program quantities, cost and production information is correctly indicated on P5 and P21.

Exhibit P-21, Production Schedule: PB 2022 Army		**Date:** May 2021
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 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	
BEB + CPK Hardware																															
Prior Years Deliveries: 188																															
	1	2020	ARMY	72	0	72			A -	-	-	-	-	-	7	7	7	7	7	7	7	7	7	7	2						0
	1	2021	ARMY	87	0	87															A -	-	-	-	-	-	7	8	8	8	56
	1	2022	ARMY	88	0	88																									88
Bridge Adapter Pallet																															
Prior Years Deliveries: 188																															
	2	2020	ARMY	72	0	72			A -	-	-	-	6	6	6	6	6	6	6	6	6	6	6	6							0
	2	2021	ARMY	87	0	87															A -	-	-	-	6	7	7	7	8	8	44
	2	2022	ARMY	88	0	88																									88
							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 2022 Army		**Date:** May 2021
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 2022												Fiscal Year 2023												BALANCE
							Calendar Year 2022												Calendar Year 2023												
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2021	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: 188																															
	1	2020	ARMY	72	72	0																									0
	1	2021	ARMY	87	31	56	8	8	8	8	8	8	8																		0
	1	2022	ARMY	88	0	88			A -	-	-	-	-	-	7	7	8	8	8	8	6	7	8	7	7	7					0
Bridge Adapter Pallet																															
Prior Years Deliveries: 188																															
	2	2020	ARMY	72	72	0																									0
	2	2021	ARMY	87	43	44	8	7	6	7	8	8																			0
	2	2022	ARMY	88	0	88			A -	-	-	-	7	7	8	8	8	8	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 2022 Army		Date: May 2021
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 2022	1-8-5 For 2022	MAX For 2022	ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1	ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1
1	Birdon America Inc - Denver, CO	7	7	12	0	9	12	21	0	5	6	11
2	CANADIAN COMMERCIAL CORPORATIO - Ottawa, Canada	2	6	12	0	9	5	14	0	5	4	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 2022 Army	Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 15: Bridging Equipment	**P-1 Line Item Number / Title:** 3758G06520 / BRIDGE SUPPLEMENTAL SET

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

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	3.967	14.373	32.493	19.867	-	19.867	-	-	-	-	-	-
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	3.967	14.373	32.493	19.867	-	19.867	-	-	-	-	-	-
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**3.967**	**14.373**	**32.493**	**19.867**	**-**	**19.867**	**-**	**-**	**-**	**-**	**-**	**-**
(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)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The Bridge Supplementary Set (BSS) provides the Multi-Role Bridging Companies (MRBCs) with a float bridge anchorage capability consisting of the Overhead Anchorage System (OCS), site stability matting, tool kits, and the Bridge Protection Device (BPD). In certain operational environments, the BSS will be enhanced by a bridge protection device, which provides protection from debris upstream from any bridge site. The site stability, anchorage, and tool kits will be integrated on container roll on/off platforms (CROP) and transported by the Common Bridge Transporter (CBT). The BSS will be issued two systems per MRBC and training institution, in addition, four BSS systems will be issued to APS. The BPD will be issued only to Army Prepositioned Stock (APS) and to the training institutions.

The BSS Army Acquisition Objective (AAO) is 64.

Secondary Distribution		FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026
Army	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	14.003	8.551	7.778	-	7.778	-	-	-	-
ANG	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	-	17.101	8.108	-	8.108	-	-	-	-
AR	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	0.370	6.841	3.981	-	3.981	-	-	-	-
Total: Secondary Distribution	**Quantity**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
	Total Obligation Authority	**14.373**	**32.493**	**19.867**	**-**	**19.867**	**-**	**-**	**-**	**-**

Exhibit P-40, Budget Line Item Justification: PB 2022 Army		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 15: Bridging Equipment	**P-1 Line Item Number / Title:** 3758G06520 / BRIDGE SUPPLEMENTAL SET	
ID Code (A=Service Ready, B=Not Service Ready):	**Program Elements for Code B Items:** N/A	**Other Related Program Elements:** N/A
Line Item MDAP/MAIS Code: N/A		

Exhibits Schedule					Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/ MAIS Code	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*
P-5	G06520 / BRIDGE SUPPLEMENTAL SET	P-5a, P-21			- / 3.967	- / 14.373	- / 32.493	- / 19.867	- / -	- / 19.867
P-40	**Total Gross/Weapon System Cost**				**- / 3.967**	**- / 14.373**	**- / 32.493**	**- / 19.867**	**- / -**	**- / 19.867**

*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 2022 Base procurement dollars of $17.485 million will be used to procure quantity 13 Bridge Supplemental Sets (BSS).

FY 2022 Base procurement dollars of $2.382 million will be used to procure quantity 2 Bridge Supplemental Sets (BSS) to support the Enduring Requirement for Operation European Deterrence Initiative (EDI) mission.

Funding supports the organic industrial base with work to be performed at Tobyhanna Army Depot including the purchase of long lead material and subsequent production effort.

P40 quantity of 13 in FY22 is incorrect. The plan is to procure 15 BSS sets (13 for Base and 2 for Enduring 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 2022 Army		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 15	P-1 Line Item Number / Title: 3758G06520 / BRIDGE SUPPLEMENTAL SET	Item Number / Title [DODIC]: G06520 / BRIDGE SUPPLEMENTAL SET
ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:	

Resource Summary	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	3.967	14.373	32.493	19.867	-	19.867
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	3.967	14.373	32.493	19.867	-	19.867
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**3.967**	**14.373**	**32.493**	**19.867**	**-**	**19.867**
(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 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 Total		
	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)
Flyaway Cost																		
Recurring Cost																		
Hardware(†)	-	-	-	1,225.000	11	13.475	1,200.000	19	22.800	1,200.000	15	18.000	-	-	-	1,200.000	15	18.000
System Engineering/ Program Management	-	-	3.967	-	-	0.598	-	-	1.106	-	-	0.266	-	-	-	-	-	0.266
Data	-	-	-	-	-	-	-	-	0.387	-	-	-	-	-	-	-	-	-
Data - TM Development	-	-	-	-	-	-	-	-	2.428	-	-	-	-	-	-	-	-	-
First Destination Transportation - FDT	-	-	-	-	-	-	-	-	0.550	-	-	0.350	-	-	-	-	-	0.350
Fielding	-	-	-	-	-	0.300	-	-	2.722	-	-	1.251	-	-	-	-	-	1.251
Subtotal: Recurring Cost	*-*	*-*	*3.967*	*-*	*-*	*14.373*	*-*	*-*	*29.993*	*-*	*-*	*19.867*	*-*	*-*	*-*	*-*	*-*	*19.867*
Non Recurring Cost																		
Hardware - Bridge Protection Device	-	-	-	-	-	-	172.727	11	1.900	-	-	-	-	-	-	-	-	-
Bridge Protection Device - Testing	-	-	-	-	-	-	-	-	0.600	-	-	-	-	-	-	-	-	-
Subtotal: Non Recurring Cost	-	-	-	-	-	-	-	-	*2.500*	-	-	-	-	-	-	-	-	-
Subtotal: Flyaway Cost	**-**	**-**	***3.967***	**-**	**-**	***14.373***	**-**	**-**	***32.493***	**-**	**-**	***19.867***	**-**	**-**	**-**	**-**	**-**	***19.867***
Gross/Weapon System Cost	**-**	**-**	**3.967**	**-**	**-**	**14.373**	**-**	**-**	**32.493**	**-**	**-**	**19.867**	**-**	**-**	**-**	**-**	**-**	**19.867**

Exhibit P-5, Cost Analysis: PB 2022 Army		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 15	**P-1 Line Item Number / Title:** 3758G06520 / BRIDGE SUPPLEMENTAL SET	**Item Number / Title [DODIC]:** G06520 / BRIDGE SUPPLEMENTAL SET

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

Remarks:
FY22 quantity P40 is 15 BSS sets (13 for Base and 2 for Enduring Requirements).

FY 2020 procurement funding was out of phase for program due to Milestone C approval and production capacity issues at Tobyhanna Army Depot resulting in $13.0 million dollar above threshold reprogramming action.

Secondary Distribution		FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Army	Quantity	-	-	-	-	-
	Total Obligation Authority	14.003	8.551	7.778	-	7.778
ANG	Quantity	-	-	-	-	-
	Total Obligation Authority	-	17.101	8.108	-	8.108
AR	Quantity	-	-	-	-	-
	Total Obligation Authority	0.370	6.841	3.981	-	3.981
Total: Secondary Distribution	**Quantity**	**-**	**-**	**-**	**-**	**-**
	Total Obligation Authority	**14.373**	**32.493**	**19.867**	**-**	**19.867**

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2022 Army		**Date:** May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 15	**P-1 Line Item Number / Title:** 3758G06520 / BRIDGE SUPPLEMENTAL SET	**Item Number / Title [DODIC]:** G06520 / BRIDGE SUPPLEMENTAL SET

Cost Elements	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(†)		2021	Tobyhanna Army Depot (TYAD) / Tobyhanna, PA	WR	TACOM, Warren, MI	May 2021	Oct 2021	19	1,200.000	Y		
Hardware(†)		2022	Tobyhanna Army Depot (TYAD) / Tobyhanna, PA	WR	TACOM, Warren, MI	Mar 2022	Aug 2022	15	1,200.000	Y		

(†) indicates the presence of a P-21

Exhibit P-21, Production Schedule: PB 2022 Army		**Date:** May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 15	**P-1 Line Item Number / Title:** 3758G06520 / BRIDGE SUPPLEMENTAL SET	**Item Number / Title [DODIC]:** G06520 / BRIDGE SUPPLEMENTAL SET

Cost Elements (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																															
	1	2021	ARMY	19	0	19								A -	-	-	-	-	2	2	2	2	2	2	2	2	2	1			0
	1	2022	ARMY	15	0	15																		A -	-	-	-	-	2	2	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 2022 Army		**Date:** May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 15	**P-1 Line Item Number / Title:** 3758G06520 / BRIDGE SUPPLEMENTAL SET	**Item Number / Title [DODIC]:** G06520 / BRIDGE SUPPLEMENTAL SET

Cost Elements (Units in Each)							Fiscal Year 2023												Fiscal Year 2024												BALANCE
										Calendar Year 2023												Calendar Year 2024									
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2022	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																															
	1	2021	ARMY	19	19	0																									0
	1	2022	ARMY	15	4	11	2	2	2	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 2022 Army		**Date:** May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 15	**P-1 Line Item Number / Title:** 3758G06520 / BRIDGE SUPPLEMENTAL SET	**Item Number / Title [DODIC]:** G06520 / BRIDGE SUPPLEMENTAL SET

MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Month)			Procurement Leadtime (Months)							
					Initial				Reorder			
		MSR For 2022	1-8-5 For 2022	MAX For 2022	ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1	ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1
1	Tobyhanna Army Depot (TYAD) - Tobyhanna, PA	1	2	2	0	6	5	11	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-40, Budget Line Item Justification: PB 2022 Army	Date: May 2021
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 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026	To Complete	Total
Procurement Quantity *(Units in Each)*	195	112	137	238	-	238	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	170.096	46.748	55.032	109.796	-	109.796	-	-	-	-	-	-
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	170.096	46.748	55.032	109.796	-	109.796	-	-	-	-	-	-
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**170.096**	**46.748**	**55.032**	**109.796**	**-**	**109.796**	**-**	**-**	**-**	**-**	**-**	**-**
(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)*	872.287	417.393	401.693	461.328	-	461.328	-	-	-	-	-	-

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 Combat Engineer Companies within the Infantry Brigade Combat Team (IBCT-A). There are 31 MRBCs (56 each), 9 SBCTs (4 each), 5 IBCTs (2 each), 1 European Activity Set (EAS) (1 each), 2 Army Prepositioned Stock sets (APS) (56 each) and 33 CBTs in the training base.

The Army Acquisition Objective (AAO) is 1,928.

NOTE: Prior Years quantities are not correct and should reflect production of 458 CBT RECAPs. Program quantities, cost and production information is correctly indicated on P5 and P21.

Secondary Distribution		FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026
Army	Quantity	-	-	91	-	91	-	-	-	-
	Total Obligation Authority	-	-	42.875	-	42.875	-	-	-	-
ANG	Quantity	98	137	147	-	147	-	-	-	-
	Total Obligation Authority	40.905	55.032	66.921	-	66.921	-	-	-	-
AR	Quantity	14	-	-	-	-	-	-	-	-
	Total Obligation Authority	5.843	-	-	-	-	-	-	-	-
Total: Secondary Distribution	**Quantity**	**112**	**137**	**238**	**-**	**238**	**-**	**-**	**-**	**-**
	Total Obligation Authority	**46.748**	**55.032**	**109.796**	**-**	**109.796**	**-**	**-**	**-**	**-**

Exhibit P-40, Budget Line Item Justification: PB 2022 Army	Date: May 2021
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 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/ MAIS Code	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*
P-5	G07000 / Common Bridge Transporter (CBT) Recap	P-5a, P-21			195 / 170.096	112 / 46.748	137 / 55.032	238 / 109.796	- / -	238 / 109.796
P-40	**Total Gross/Weapon System Cost**				**195 / 170.096**	**112 / 46.748**	**137 / 55.032**	**238 / 109.796**	**- / -**	**238 / 109.796**

*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 2022 Base procurement dollars in the amount of $82.010 million supports the recapitalization or new procurement of 182 Common Bridge Transporters in support of Active Army and Army National Guard requirements.

FY 2022 Base procurement dollars in the amount of $27.786 million supports the recapitalization or new procurement of 56 Common Bridge Transporters to support the Enduring Requirement for Operation European Deterrence Initiative.

The currently fielded M1977A0 and M1977A2 CBTs have significant obsolescence issues due to a lack of crew survivability, electrical, and powertrain supportability. The M1977A4 provides the Soldier with key survivability requirements to include a Long Term Armor Strategy (LTAS) compliant cab, new engine and transmission, air ride suspension, anti-lock brakes, traction control, and an updated electrical system to support current and future communications equipment and diagnostic/prognostics systems.

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

NOTE: Prior Years quantities are not correct and should reflect production of 458 CBT RECAPs. Program quantities, cost and production information is correctly indicated on P5 and P21.

Exhibit P-5, Cost Analysis: PB 2022 Army		Date: May 2021
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 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Procurement Quantity *(Units in Each)*	195	112	137	238	-	238
Gross/Weapon System Cost *($ in Millions)*	170.096	46.748	55.032	109.796	-	109.796
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	170.096	46.748	55.032	109.796	-	109.796
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**170.096**	**46.748**	**55.032**	**109.796**	**-**	**109.796**
(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)*	872.287	417.393	401.693	461.328	-	461.328

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

Cost Elements	Prior Years			FY 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 Total		
	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	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(†)	319.978	458	146.550	376.795	112	42.201	393.483	120	47.218	401.269	238	95.502	-	-	-	401.269	238	95.502
Federal Retail Excise Tax (FRET) on Oshkosh Production	39.091	243	9.499	46.310	58	2.686	47.217	120	5.666	48.151	238	11.460	-	-	-	48.151	238	11.460
Engineering Changes	-	-	0.250	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
System Engineering/ Program Management	-	-	6.196	-	-	0.545	-	-	0.550	-	-	0.756	-	-	-	-	-	0.756
Fielding	-	-	1.813	-	-	0.497	-	-	0.741	-	-	0.957	-	-	-	-	-	0.957
Transportation	-	-	4.977	-	-	0.819	-	-	0.857	-	-	1.121	-	-	-	-	-	1.121
Data	-	-	0.761	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
System Test & Evaluation, Production	-	-	0.050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Recurring Cost	-	-	*170.096*	-	-	*46.748*	-	-	*55.032*	-	-	*109.796*	-	-	-	-	-	*109.796*
Subtotal: Flyaway Cost	**-**	**-**	***170.096***	**-**	**-**	***46.748***	**-**	**-**	***55.032***	**-**	**-**	***109.796***	**-**	**-**	**-**	**-**	**-**	***109.796***
Gross/Weapon System Cost	**872.287**	**195**	**170.096**	**417.393**	**112**	**46.748**	**401.693**	**137**	**55.032**	**461.328**	**238**	**109.796**	**-**	**-**	**-**	**461.328**	**238**	**109.796**

Remarks:
Red River Army Depot (RRAD) Production is not forecasted in FY22 to due non-availability of M1977A4 carcasses (lower cost option). FY22 production will utilize M1977A0/A2 CBT carcasses or new M1977A4 CBTs will be procured.

Exhibit P-5, Cost Analysis: PB 2022 Army		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 15	**P-1 Line Item Number / Title:** 3974G07000 / Common Bridge Transporter (CBT) Recap	**Item Number / Title [DODIC]:** G07000 / Common Bridge Transporter (CBT) Recap
ID Code (A=Service Ready, B=Not Service Ready) :	**MDAP/MAIS Code:**	

NOTE: P40 Prior Years quantities are not correct and should reflect production of 458 CBT RECAPs. Program quantities, cost and production information is correctly indicated on P5 and P21.

FY 2021 Quantities should be 120. Quantities will be updated to adjust for actual execution data prior to the submission of the FY 2023 President's Budget.

Secondary Distribution		FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Army	Quantity	-	-	91	-	91
	Total Obligation Authority	-	-	42.875	-	42.875
ANG	Quantity	98	137	147	-	147
	Total Obligation Authority	40.905	55.032	66.921	-	66.921
AR	Quantity	14	-	-	-	-
	Total Obligation Authority	5.843	-	-	-	-
Total: Secondary Distribution	**Quantity**	**112**	**137**	**238**	**-**	**238**
	Total Obligation Authority	**46.748**	**55.032**	**109.796**	**-**	**109.796**

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2022 Army		**Date:** May 2021
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(†)		2020	Oshkosh Corp / Oshkosh, WI	SS / FPIF	TACOM, Warren, MI	Apr 2020	Sep 2020	58	385.840	Y		
M1977A4 CBT RECAP(†)		2020	Red River Army Depot / Texarkana, Texas	WR	TACOM, Warren, MI	Dec 2019	Apr 2020	54	300.000	Y		
M1977A4 CBT RECAP(†)		2021	Oshkosh Corp / Oshkosh, WI	SS / FPIF	TACOM, Warren, MI	Dec 2020	Apr 2021	120	393.483	N		
M1977A4 CBT RECAP(†)		2022	Oshkosh Corp / Oshkosh, WI	SS / FPIF	TACOM, Warren, MI	Dec 2021	Apr 2022	238	401.269	Y		

(†) indicates the presence of a P-21

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

Exhibit P-21, Production Schedule: PB 2022 Army		**Date:** May 2021
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 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	
M1977A4 CBT RECAP																															
Prior Years Deliveries: 458																															
	1	2020	ARMY	58	0	58							A -	-	-	-	-	5	5	5	5	5	4	4	5	5	5	5	5		0
	2	2020	ARMY	54	0	54			A -	-	-	-	4	4	4	5	5	5	5	5	5	4	4	4							0
	1	2021	ARMY	120	0	120															A -	-	-	-	11	11	11	11	11	11	54
	1	2022	ARMY	238	0	238																									238
							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 2022 Army		**Date:** May 2021
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 2022												Fiscal Year 2023												BALANCE
							Calendar Year 2022												Calendar Year 2023												
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2021	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: 458																															
	1	2020	ARMY	58	58	0																									0
	2	2020	ARMY	54	54	0																									0
	1	2021	ARMY	120	66	54	11	11	11	11	10																				0
	1	2022	ARMY	238	0	238			A -	-	-	-	14	18	20	20	22	22	22	22	20	20	20	18							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 2022 Army		**Date:** May 2021
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 2022	1-8-5 For 2022	MAX For 2022	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, WI	6	924	2,520	0	9	11	20	0	7	5	12
2	Red River Army Depot - Texarkana, Texas	1	3	6	0	5	4	9	0	5	4	9

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

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

Exhibit P-40, Budget Line Item Justification: PB 2022 Army	Date: May 2021
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 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026	To Complete	Total
Procurement Quantity *(Units in Each)*	668	593	334	226	-	226	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	366.603	7.570	5.570	5.628	-	5.628	-	-	-	-	-	-
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	366.603	7.570	5.570	5.628	-	5.628	-	-	-	-	-	-
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**366.603**	**7.570**	**5.570**	**5.628**	**-**	**5.628**	**-**	**-**	**-**	**-**	**-**	**-**
(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)*	548.807	12.766	16.677	24.903	-	24.903	-	-	-	-	-	-

Description:

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

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

Secondary Distribution		FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026
Army	Quantity	296	268	190	-	190	-	-	-	-
	Total Obligation Authority	5.649	4.456	4.934	-	4.934	-	-	-	-
ANG	Quantity	149	33	18	-	18	-	-	-	-
	Total Obligation Authority	0.964	0.557	0.347	-	0.347	-	-	-	-
AR	Quantity	148	33	18	-	18	-	-	-	-
	Total Obligation Authority	0.957	0.557	0.347	-	0.347	-	-	-	-
Total: Secondary Distribution	**Quantity**	**593**	**334**	**226**	**-**	**226**	**-**	**-**	**-**	**-**
	Total Obligation Authority	**7.570**	**5.570**	**5.628**	**-**	**5.628**	**-**	**-**	**-**	**-**

Exhibit P-40, Budget Line Item Justification: PB 2022 Army		Date: May 2021
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 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/ MAIS Code	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*
P-5	R68200 / Handheld Standoff Minefield Detection Sys-HSTAMIDS	P-5a	A		668 / 366.603	593 / 7.570	334 / 5.570	226 / 5.628	- / -	226 / 5.628
P-40	**Total Gross/Weapon System Cost**				**668 / 366.603**	**593 / 7.570**	**334 / 5.570**	**226 / 5.628**	**- / -**	**226 / 5.628**

*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 2022 base procurement dollars in the amount of $5.628 million procures 226 AN/PSS-14C systems and the support (Program Management, Production Engineering, New Equipment Training (NET) and Training Lane Installation (a subset of NET)) required to field it ($3.766 million of this supports the Enduring Requirement for Operation 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-5, Cost Analysis: PB 2022 Army		Date: May 2021
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 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Procurement Quantity *(Units in Each)*	668	593	334	226	-	226
Gross/Weapon System Cost *($ in Millions)*	366.603	7.570	5.570	5.628	-	5.628
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	366.603	7.570	5.570	5.628	-	5.628
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**366.603**	**7.570**	**5.570**	**5.628**	**-**	**5.628**
(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)*	548.807	12.766	16.677	24.903	-	24.903

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

Cost Elements	Prior Years			FY 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 Total		
	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)
Flyaway Cost																		
Recurring Cost																		
Detector Set AN/PSS-14(†)	13.369	16,087	215.067	11.906	593	7.060	15.527	334	5.186	21.035	226	4.754	-	-	-	21.035	226	4.754
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	-	-	35.744	-	-	0.245	-	-	0.189	-	-	0.241	-	-	-	-	-	0.241
Program Management	-	-	16.469	-	-	0.265	-	-	0.195	-	-	0.171	-	-	-	-	-	0.171
Training & Maintenance	-	-	35.391	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acceptance Testing	-	-	1.377	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Integrated Logistic Support	-	-	17.904	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
NET (New Equipment Training)/DTT (Doctrine and Tactics Training)	-	-	5.469	-	-	-	-	-	-	-	-	0.462	-	-	-	-	-	0.462
Subtotal: Recurring Cost	*-*	*-*	*366.603*	*-*	*-*	*7.570*	*-*	*-*	*5.570*	*-*	*-*	*5.628*	*-*	*-*	*-*	*-*	*-*	*5.628*
Subtotal: Flyaway Cost	***-***	***-***	***366.603***	***-***	***-***	***7.570***	***-***	***-***	***5.570***	***-***	***-***	***5.628***	***-***	***-***	***-***	***-***	***-***	***5.628***

Exhibit P-5, Cost Analysis: PB 2022 Army		Date: May 2021
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 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 Total		
	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	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	**548.807**	**668**	**366.603**	**12.766**	**593**	**7.570**	**16.677**	**334**	**5.570**	**24.903**	**226**	**5.628**	**-**	**-**	**-**	**24.903**	**226**	**5.628**

Secondary Distribution		FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Army	Quantity	296	268	190	-	190
	Total Obligation Authority	5.649	4.456	4.934	-	4.934
ANG	Quantity	149	33	18	-	18
	Total Obligation Authority	0.964	0.557	0.347	-	0.347
AR	Quantity	148	33	18	-	18
	Total Obligation Authority	0.957	0.557	0.347	-	0.347
Total: Secondary Distribution	**Quantity**	**593**	**334**	**226**	**-**	**226**
	Total Obligation Authority	**7.570**	**5.570**	**5.628**	**-**	**5.628**

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2022 Army		**Date:** May 2021
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		2020	L3 Harris / Orlando, Florida	SS / FFP	CECOM Ft. Belvoir, VA	Mar 2020	Sep 2020	593	11.906	Y		
Detector Set AN/PSS-14		2021	L3 Harris / Orlando, Florida	SS / FFP	CECOM Ft. Belvoir, VA	Jan 2021	Oct 2021	334	15.527	Y		
Detector Set AN/PSS-14		2022	L3 Harris / Orlando, Florida	SS / FFP	CECOM Ft. Belvoir, VA	Nov 2021	May 2022	226	21.035	Y		

Exhibit P-40, Budget Line Item Justification: PB 2022 Army	Date: May 2021
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 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026	To Complete	Total
Procurement Quantity *(Units in Each)*	345	45	32	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	2,072.123	40.680	2.497	-	-	-	-	-	-	-	-	-
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	2,072.123	40.680	2.497	-	-	-	-	-	-	-	-	-
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**2,072.123**	**40.680**	**2.497**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
(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)*	6,006.154	904.000	78.031	-	-	-	-	-	-	-	-	-

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 336, the Debris Blower is 176, and the Wire Neutralization System (WNS) is 128.

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

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

Vehicle Optics Sensor System (VOSS)
VOSS provides a telescoping, gyro-stabilized, high resolution, triple sensor (day camera, Image Intensify Night Vision Sensor and an Infrared Sensor) surveillance system to optically detect from standoff distances, explosive hazards (Improvised Explosive Device (IEDs) and landmines), and their trigger sources. VOSS is mounted on MMPV located within Route Clearance Platoons and Explosive 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 2022 Army	Date: May 2021
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 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026
Army	Quantity	24	10	-	-	-	-	-	-	-
	Total Obligation Authority	33.987	0.780	-	-	-	-	-	-	-
ANG	Quantity	21	18	-	-	-	-	-	-	-
	Total Obligation Authority	6.693	1.404	-	-	-	-	-	-	-
AR	Quantity	-	4	-	-	-	-	-	-	-
	Total Obligation Authority	-	0.313	-	-	-	-	-	-	-
Total: Secondary Distribution	**Quantity**	**45**	**32**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
	Total Obligation Authority	**40.680**	**2.497**	**-**	**-**	**-**	**-**	**-**	**-**	**-**

Justification:
R68400 has no FY2022 funding request.

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

Exhibit P-40, Budget Line Item Justification: PB 2022 Army	Date: May 2021
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 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026	To Complete	Total
Procurement Quantity *(Units in Each)*	77	112	182	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	71.340	75.586	95.608	26.823	-	26.823	-	-	-	-	-	-
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	71.340	75.586	95.608	26.823	-	26.823	-	-	-	-	-	-
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**71.340**	**75.586**	**95.608**	**26.823**	**-**	**26.823**	**-**	**-**	**-**	**-**	**-**	**-**
(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)*	926.494	674.875	525.319	-	-	-	-	-	-	-	-	-

Description:

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

The Husky Mounted Detection System (HMDS) is a life-saving counter-explosive device capability that provides standoff detection and marking of metallic encased caches and metallic and low-metallic antitank landmines, unexploded ordnance, trigger mechanisms, and improvised explosive devices (IEDs) in support of route and area-clearance operations. HMDS is a mission equipment package, mounted on the Husky route clearance vehicle and includes associated installation and auto-sensor height hardware. The HMDS-0 (R64002 line) configuration provides Ground Penetrating Radar (GPR) as the primary detection sensor. The HMDS-0 (R64002 line) will continue production and fielding in FY21. The HMDS-2 (R64003 line) configuration adds Wire Detection (WD) capability, further improving the detection rate of IEDs commonly found along routes and incorporates Information Assurance (IA) enabling compliance with Risk Management Framework requirements. These changes are necessary to adapt to ever changing IED threats endangering our Soldiers. WD technology will be fully integrated through an Engineering Change Proposal (ECP) process with production beginning in FY21 and fielding in FY22. Future configurations may include detection capability of deep buried metallic threats (weapons caches, Unexploded Ordnance (UXO) and advanced GPR sensor capability which incorporates increased performance allowing interoperability with Counter Radio Warfare (CREW) jammer with deeper detection capability.

Secondary Distribution		FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026
Army	Quantity	41	182	-	-	-	-	-	-	-
	Total Obligation Authority	58.925	95.608	26.823	-	26.823	-	-	-	-
ANG	Quantity	50	-	-	-	-	-	-	-	-
	Total Obligation Authority	3.702	-	-	-	-	-	-	-	-
AR	Quantity	21	-	-	-	-	-	-	-	-
	Total Obligation Authority	12.959	-	-	-	-	-	-	-	-
Total:	**Quantity**	**112**	**182**	**-**	**-**	**-**	**-**	**-**	**-**	**-**

Exhibit P-40, Budget Line Item Justification: PB 2022 Army			Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 20: Engineer (Non-Construction) Equipment		**P-1 Line Item Number / Title:** 2889R64001 / HUSKY MOUNTED DETECTION SYSTEM (HMDS)	
ID Code (A=Service Ready, B=Not Service Ready):	**Program Elements for Code B Items:** N/A	**Other Related Program Elements:** N/A	
Line Item MDAP/MAIS Code: N/A			

Secondary Distribution		FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026
Secondary Distribution	Total Obligation Authority	75.586	95.608	26.823	-	26.823	-	-	-	-

Exhibit P-40, Budget Line Item Justification: PB 2022 Army	Date: May 2021
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 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/ MAIS Code	Quantity / Total Cost (Each) I ($ M)	Quantity / Total Cost (Each) I ($ M)	Quantity / Total Cost (Each) I ($ M)	Quantity / Total Cost (Each) I ($ M)	Quantity / Total Cost (Each) I ($ M)	Quantity / Total Cost (Each) I ($ M)
P-5	R64002 / HMDS - GROUND PENETRATING RADAR	P-5a			77 / 71.340	112 / 46.204	- / 23.726	- / 11.523	- / -	- / 11.523
P-5	R64003 / HMDS - DEEP BURIED DETECTION	P-5a			- / -	- / 29.382	182 / 71.882	- / 15.300	- / -	- / 15.300
P-40	**Total Gross/Weapon System Cost**				**77 / 71.340**	**112 / 75.586**	**182 / 95.608**	**- / 26.823**	**- / -**	**- / 26.823**

*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:
FY2022 base (R64002) procurement dollars of $11.523 million will procure fielding and New Equipment Training (NET) of FY20/21 procured systems, logistics support and PM Support.

FY2022 base (R64003) procurement dollars of $15.300 million will procure associated spares for HMDS Wire Detection (WD) sensors (HMDS-2), NET, Contractor Logistics Support (CLS)/fielding efforts, and PM Support.

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

Exhibit P-5, Cost Analysis: PB 2022 Army		Date: May 2021
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 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Procurement Quantity *(Units in Each)*	77	112	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	71.340	46.204	23.726	11.523	-	11.523
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	71.340	46.204	23.726	11.523	-	11.523
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**71.340**	**46.204**	**23.726**	**11.523**	**-**	**11.523**
(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)*	926.494	412.536	-	-	-	-

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

Cost Elements	Prior Years			FY 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 Total		
	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	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(†)	515.065	77	39.660	208.545	134	27.945	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Recurring Cost	-	-	*39.660*	-	-	*27.945*	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Hardware Cost	**-**	**-**	***39.660***	**-**	**-**	***27.945***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Package Fielding Cost																		
Recurring Cost																		
Initial Spares/Repair Parts	-	-	7.419	-	-	2.041	-	-	2.644	-	-	-	-	-	-	-	-	-
New Equipment Training	-	-	4.283	-	-	5.105	-	-	4.343	-	-	1.540	-	-	-	-	-	1.540
Con/Integrated Logistics Support	-	-	9.531	-	-	4.368	-	-	7.810	-	-	8.982	-	-	-	-	-	8.982
Fielding initial support	-	-	3.180	-	-	5.040	-	-	5.828	-	-	0.320	-	-	-	-	-	0.320
Subtotal: Recurring Cost	-	-	*24.413*	-	-	*16.554*	-	-	*20.625*	-	-	*10.842*	-	-	-	-	-	*10.842*
Subtotal: Package Fielding Cost	**-**	**-**	***24.413***	**-**	**-**	***16.554***	**-**	**-**	***20.625***	**-**	**-**	***10.842***	**-**	**-**	**-**	**-**	**-**	***10.842***
Support - Program Management Cost																		
Contractor Management	-	-	7.267	-	-	1.705	-	-	3.101	-	-	0.681	-	-	-	-	-	0.681
Subtotal: Support - Program Management Cost	**-**	**-**	***7.267***	**-**	**-**	***1.705***	**-**	**-**	***3.101***	**-**	**-**	***0.681***	**-**	**-**	**-**	**-**	**-**	***0.681***
Gross/Weapon System Cost	**926.494**	**77**	**71.340**	**412.536**	**112**	**46.204**	**-**	**-**	**23.726**	**-**	**-**	**11.523**	**-**	**-**	**-**	**-**	**-**	**11.523**

Exhibit P-5, Cost Analysis: PB 2022 Army		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 20	**P-1 Line Item Number / Title:** 2889R64001 / HUSKY MOUNTED DETECTION SYSTEM (HMDS)	**Item Number / Title [DODIC]:** R64002 / HMDS - GROUND PENETRATING RADAR
ID Code (A=Service Ready, B=Not Service Ready) :	**MDAP/MAIS Code:**	

Remarks:
Note: Funds in the amount of $23.726 will fund Initial Spares/Repair Parts, New Equipment Training (NET), Contractor Logistics Support (CLS), Fielding Support and PM Support.

Secondary Distribution		FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Army	Quantity	41	-	-	-	-
	Total Obligation Authority	29.543	23.726	11.523	-	11.523
ANG	Quantity	50	-	-	-	-
	Total Obligation Authority	3.702	-	-	-	-
AR	Quantity	21	-	-	-	-
	Total Obligation Authority	12.959	-	-	-	-
Total: Secondary Distribution	**Quantity**	**112**	**-**	**-**	**-**	**-**
	Total Obligation Authority	**46.204**	**23.726**	**11.523**	**-**	**11.523**

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2022 Army		Date: May 2021
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		2021	Chemring Sensors & Eletronic / Charlotte, NC	SS / IDIQ	Charlotte, NC	Feb 2021	Nov 2021	0	0.000	N		

Exhibit P-5, Cost Analysis: PB 2022 Army		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 20	P-1 Line Item Number / Title: 2889R64001 / HUSKY MOUNTED DETECTION SYSTEM (HMDS)	Item Number / Title [DODIC]: R64003 / HMDS - DEEP BURIED DETECTION
ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:	

Resource Summary	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Procurement Quantity *(Units in Each)*	-	-	182	-	-	-
Gross/Weapon System Cost *($ in Millions)*	-	29.382	71.882	15.300	-	15.300
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	-	29.382	71.882	15.300	-	15.300
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**-**	**29.382**	**71.882**	**15.300**	**-**	**15.300**
(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)*	-	-	394.956	-	-	-

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

Cost Elements	Prior Years			FY 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 Total		
	Unit Cost *($ K)*	Qty *(Each)*	Total Cost *($ M)*	Unit Cost *($ K)*	Qty *(Each)*	Total Cost *($ M)*	Unit Cost *($ K)*	Qty *(Each)*	Total Cost *($ M)*	Unit Cost *($ K)*	Qty *(Each)*	Total Cost *($ M)*	Unit Cost *($ K)*	Qty *(Each)*	Total Cost *($ M)*	Unit Cost *($ K)*	Qty *(Each)*	Total Cost *($ M)*
Hardware Cost																		
Recurring Cost																		
HMDS Wire Detection (WD)(†)	-	-	-	287.583	60	17.255	226.703	182	41.260	-	-	-	-	-	-	-	-	-
Subtotal: Recurring Cost	-	-	-	-	-	*17.255*	-	-	*41.260*	-	-	-	-	-	-	-	-	-
Subtotal: Hardware Cost	**-**	**-**	**-**	**-**	**-**	***17.255***	**-**	**-**	***41.260***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Package Fielding Cost																		
Recurring Cost																		
Initial Spares/Repair Parts	-	-	-	-	-	1.602	-	-	10.241	-	-	2.104	-	-	-	-	-	2.104
New Equipment Training	-	-	-	-	-	3.267	-	-	5.350	-	-	2.168	-	-	-	-	-	2.168
Con/Integrated Logistics Support	-	-	-	-	-	2.796	-	-	4.303	-	-	4.428	-	-	-	-	-	4.428
Fielding Initial Support	-	-	-	-	-	3.371	-	-	5.614	-	-	4.028	-	-	-	-	-	4.028
Subtotal: Recurring Cost	-	-	-	-	-	*11.036*	-	-	*25.508*	-	-	*12.728*	-	-	-	-	-	*12.728*
Subtotal: Package Fielding Cost	**-**	**-**	**-**	**-**	**-**	***11.036***	**-**	**-**	***25.508***	**-**	**-**	***12.728***	**-**	**-**	**-**	**-**	**-**	***12.728***
Support - Program Management Cost																		
Contractor Management	-	-	-	-	-	1.091	-	-	5.114	-	-	2.572	-	-	-	-	-	2.572
Subtotal: Support - Program Management Cost	**-**	**-**	**-**	**-**	**-**	***1.091***	**-**	**-**	***5.114***	**-**	**-**	***2.572***	**-**	**-**	**-**	**-**	**-**	***2.572***

Exhibit P-5, Cost Analysis: PB 2022 Army		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 20	**P-1 Line Item Number / Title:** 2889R64001 / HUSKY MOUNTED DETECTION SYSTEM (HMDS)	**Item Number / Title [DODIC]:** R64003 / HMDS - DEEP BURIED DETECTION
ID Code (A=Service Ready, B=Not Service Ready) :	**MDAP/MAIS Code:**	

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

Cost Elements	Prior Years			FY 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 Total		
	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	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	-	-	-	-	-	29.382	394.956	182	71.882	-	-	15.300	-	-	-	-	-	15.300

Secondary Distribution		FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Army	Quantity	-	182	-	-	-
	Total Obligation Authority	29.382	71.882	15.300	-	15.300
Total: Secondary Distribution	**Quantity**	**-**	**182**	**-**	**-**	**-**
	Total Obligation Authority	**29.382**	**71.882**	**15.300**	**-**	**15.300**

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2022 Army		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 20	P-1 Line Item Number / Title: 2889R64001 / HUSKY MOUNTED DETECTION SYSTEM (HMDS)	Item Number / Title [DODIC]: R64003 / HMDS - DEEP BURIED DETECTION

Cost Elements	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 Wire Detection (WD)		2021	Chemring Sensors & Electronic / Charlotte, NC	SS / IDIQ	Charlotte, NC	Feb 2021	Nov 2021	182	226.703	N		

Exhibit P-40, Budget Line Item Justification: PB 2022 Army	Date: May 2021
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 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026	To Complete	Total
Procurement Quantity *(Units in Each)*	37	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	97.574	5.300	-	-	-	-	-	-	-	-	-	-
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	97.574	5.300	-	-	-	-	-	-	-	-	-	-
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**97.574**	**5.300**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
(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)*	2,637.135	-	-	-	-	-	-	-	-	-	-	-

Description:

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

Secondary Distribution		FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026
Army	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	3.638	-	-	-	-	-	-	-	-
ANG	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	0.554	-	-	-	-	-	-	-	-
AR	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	1.108	-	-	-	-	-	-	-	-
Total: Secondary Distribution	**Quantity**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
	Total Obligation Authority	**5.300**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**

Justification:
M80400 has no FY2022 funding request.

Exhibit P-40, Budget Line Item Justification: PB 2022 Army	Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 20: Engineer (Non-Construction) Equipment	**P-1 Line Item Number / Title:** 4867W12001 / EOD Robotics Systems Recapitalization

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

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026	To Complete	Total
Procurement Quantity *(Units in Each)*	162	47	70	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	44.645	23.115	36.584	-	-	-	-	-	-	-	-	-
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	44.645	23.115	36.584	-	-	-	-	-	-	-	-	-
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**44.645**	**23.115**	**36.584**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
(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)*	275.586	491.809	522.629	-	-	-	-	-	-	-	-	-

Description:

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

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

Secondary Distribution		FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026
Army	Quantity	47	56	-	-	-	-	-	-	-
	Total Obligation Authority	23.115	29.267	-	-	-	-	-	-	-
ANG	Quantity	-	14	-	-	-	-	-	-	-
	Total Obligation Authority	-	7.317	-	-	-	-	-	-	-
Total: Secondary Distribution	**Quantity**	**47**	**70**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
	Total Obligation Authority	**23.115**	**36.584**	**-**	**-**	**-**	**-**	**-**	**-**	**-**

Exhibit P-40, Budget Line Item Justification: PB 2022 Army		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 20: Engineer (Non-Construction) Equipment	**P-1 Line Item Number / Title:** 4867W12001 / EOD Robotics Systems Recapitalization	
ID Code (A=Service Ready, B=Not Service Ready): B	**Program Elements for Code B Items:** 0605053A	**Other Related Program Elements:** N/A
Line Item MDAP/MAIS Code: N/A		

Justification:
W12001 has no FY2022 funding request.

Exhibit P-40, Budget Line Item Justification: PB 2022 Army	Date: May 2021
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 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026	To Complete	Total
Procurement Quantity *(Units in Each)*	2,106	2,014	2,411	1,942	-	1,942	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	64.931	101.056	172.744	124.233	-	124.233	-	-	-	-	-	-
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	64.931	101.056	172.744	124.233	-	124.233	-	-	-	-	-	-
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**64.931**	**101.056**	**172.744**	**124.233**	**-**	**124.233**	**-**	**-**	**-**	**-**	**-**	**-**
(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)*	30.831	50.177	71.648	63.972	-	63.972	-	-	-	-	-	-

Description:

The Common Robotic System - Individual (CRS(I)) is the Army's small sized (<25 lbs.) Soldier back-packable, remotely operated, common robotic system. The system provides dismounted Soldiers with increased standoff capability from hazardous threats. The system consists of a controller, a suite of payloads, and an open architecture common mobility platform allowing for future capability growth. The CRS(I) will allow the operator to quickly re-configure for other various missions by adding or removing modules and/or payloads. The CRS(I) will provide interrogation, detection, confirmation, and neutralization capabilities employed to support a wide spectrum of mobility missions for current and future forces. This capability provides commanders the ability to persistently monitor the Operating Environment (OE) while protecting and sustaining the force. The CRS(I) complements the Joint Integrated War-fighting Force by providing standoff to the Warfighter during major combat, stability, and homeland security operations. The Army Acquisition Objective (AAO) is 4565. The Army Procurement Objective (APO) is 1850.

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

The Tactical Wheeled Vehicle Leader Follower (TWV-LF) provides force protection and logistics throughput for line haul convoy missions for the Palletized Load System (PLS) Fleet of TWVs via wireless linking of unmanned follower PLS' to a Soldier-operated Leader PLS vehicle. It reduces the number of soldiers required to operate the convoy, resulting in reduced number exposed to risk of injury from attack. The TWV-LF capability is a suite of robotic applique sensors and vehicle by-wire and active safety upgrades to provide an unmanned capability to the PLS A1 Fleet of vehicles for convoy operations, with (1) manned leader and (3) to (7) unmanned follower vehicles. The AAO is 776..

The Small Multipurpose Equipment Transport (S-MET) will help to reduce Soldier loads and increase mission capabilities by transporting mission specific equipment, resupply equipment, and supplies required for extended operations. The S-MET will be capable of carrying the equipment currently required to support Infantry and Engineer Platoons in the Infantry Brigade Combat Team (IBCT) for a 72 hour mission

Exhibit P-40, Budget Line Item Justification: PB 2022 Army		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 20: Engineer (Non-Construction) Equipment	**P-1 Line Item Number / Title:** 4868W12002 / Robotics and Applique Systems	
ID Code (A=Service Ready, B=Not Service Ready): B	**Program Elements for Code B Items:** 0604808A	**Other Related Program Elements:** 0605053A
Line Item MDAP/MAIS Code: N/A		

without resupply. The S-MET will reduce Soldier load, increase squad mobility during combat operations and dismounted maneuvers. S-MET will have open architectures, a remote control and support casualty evacuation, power generation/offload and integration of Modular Mission Payloads (MMP) and technical insertions. The AAO is TBD.

The Man Transportable Robotic System (MTRS) Inc. II is the Army's Soldier transportable, remotely operated, medium size (<= 164 lbs.) common robotic system. The system utilizes both radio and tethered communications allowing dismounted Soldiers to perform hazardous missions from a safe standoff distance. The MTRS Inc. II system consists of an Operator Control Unit (OCU), a suite of various mission payloads, and a mobility platform. Open architecture and the Ground Robotic Autonomous Systems (RAS) Interoperability Profile (IOP) requirements are employed to reduce obsolescence risks and to maximize efficiency in acquiring future capabilities. MTRS Inc. II will support current and future payload missions for the Engineer's route clearance platoons, Special Operational Forces (SOF) detachments, Chemical Biological Radiological and Nuclear (CBRN), and Explosive Ordnance Disposal (EOD) Units. The approved Army Acquisition Objective (AAO) for this program is 1,148.

The Soldier Borne Sensor (SBS) is a small unmanned aerial vehicle. It is a squad level system that provides situational awareness to 1KM with a 20 minute endurance. The SBS provides the Squad with an organic "quick look" capability for near real-time video feeds of larger, complex, and restrictive environments. It reduces exposure to potential threats and enhances freedom of maneuver by providing actionable information to support decisions at the lowest echelon. The Army has approved requirements documents, namely the SBS Capabilities Production Document (CPD). The approved Army Acquisition Objective (AAO) for this program is 10,317. The First Unit Equipped (FUE) occurred in FY19.

Secondary Distribution		FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026
Army	Quantity	1,330	1,437	866	-	866	-	-	-	-
	Total Obligation Authority	68.509	105.043	62.753	-	62.753	-	-	-	-
ANG	Quantity	684	786	967	-	967	-	-	-	-
	Total Obligation Authority	32.547	45.919	54.550	-	54.550	-	-	-	-
AR	Quantity	-	188	109	-	109	-	-	-	-
	Total Obligation Authority	-	21.782	6.930	-	6.930	-	-	-	-
Total: Secondary Distribution	**Quantity**	**2,014**	**2,411**	**1,942**	**-**	**1,942**	**-**	**-**	**-**	**-**
	Total Obligation Authority	**101.056**	**172.744**	**124.233**	**-**	**124.233**	**-**	**-**	**-**	**-**

Exhibit P-40, Budget Line Item Justification: PB 2022 Army		Date: May 2021
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 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/ MAIS Code	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)
P-5	G93696 / Common Robotic System - Individual (CRS-I)	P-5a, P-21	B		- / -	532 / 30.387	858 / 52.528	213 / 12.625	- / -	213 / 12.625
P-5	G99595 / Common Robotic System-Individual (CRS-I)	P-5a	B		53 / 3.158	428 / 2.285	198 / 1.154	117 / 1.141	- / -	117 / 1.141
P-5	R06806 / Leader/Follower Applique (L/F)				- / -	- / -	- / 7.624	- / -	- / -	- / -
P-5	R12154 / Squad Multipurpose Equipment Transport (SMET)	P-5a, P-21	B		- / -	24 / 8.768	203 / 28.555	148 / 29.448	- / -	148 / 29.448
P-5	R67050 / Man Transportable Robotic Sys Inc II (MTRS Inc II)	P-5a, P-21	B		30 / 12.182	230 / 36.254	474 / 63.976	459 / 62.365	- / -	459 / 62.365
P-5	W63798 / Soldier Borne Sensor (SBS)	P-5a, P-21			2,023 / 49.591	800 / 23.362	678 / 18.907	1,005 / 18.654	- / -	1,005 / 18.654
P-40	**Total Gross/Weapon System Cost**				**2,106 / 64.931**	**2,014 / 101.056**	**2,411 / 172.744**	**1,942 / 124.233**	**- / -**	**1,942 / 124.233**

*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 2022 Base Procurement dollars of $12.625 million for G93696 Common Robotic System (Individual) (CRS(I)), will procure 213 CRS(I) systems with Controllers, Interim Contractor Logistics Support (ICLS), Fielding and Training costs, Engineering Change Proposals (ECP) and testing of ECPs, and System Engineering Program Management (SEPM) to support Base requirements.

FY 2022 Base Procurement dollars of $1.141 million for G99595 will procure 117 Common Robotic System (Individual) (CRS(I)) controllers and System Engineering Program Management (SEPM) to support Base requirements.

R06806 Leader Follower has no FY22 funding request.

FY 2022 Base Procurement dollars of $29.448 million for R12154 Squad Multipurpose Equipment Transport, will procure 148 Small Multipurpose Equipment Transport (S-MET) systems, Modular Mission Payloads (MMP), Technical Insertions or Engineering Change Proposals (ECP), and Total Package Fielding to support Base requirements.

FY 2022 Base Procurement dollars of $62.365 million for R67050 Man Transportable Robotics System Increment II will procure 459 Man Transportable Robotics System Increment II (MTRS Inc. II), software sustainment, Contractor Logistics Support (CLS) (or government support from the Robotics Logistics Support Center (RLSC)), MTRS Inc. II production systems, Chemical, Biological, Radiological, and Nuclear (CBRN) kits, Robotic Deployment System Kit with external antenna mounts, initial spares, logistic activities, and System Engineering Program Management (SEPM) to support Base requirements.

FY 2022 Base Procurement dollars of $18.654 million for W63798 Soldier Borne Sensor (SBS) will procure 1,005 Soldier Borne Sensor (SBS) systems, initial spares, fielding costs, and System Engineering Program Management (SEPM) to support Base requirements.

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 2022 Army		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 20	P-1 Line Item Number / Title: 4868W12002 / Robotics and Applique Systems	Item Number / Title [DODIC]: G93696 / Common Robotic System - Individual (CRS-I)
ID Code (A=Service Ready, B=Not Service Ready) : B	MDAP/MAIS Code:	

Resource Summary	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Procurement Quantity *(Units in Each)*	-	532	858	213	-	213
Gross/Weapon System Cost *($ in Millions)*	-	30.387	52.528	12.625	-	12.625
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	-	30.387	52.528	12.625	-	12.625
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**-**	**30.387**	**52.528**	**12.625**	**-**	**12.625**
(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)*	-	57.118	61.221	59.272	-	59.272

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

Cost Elements	Prior Years			FY 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 Total		
	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)
Hardware Cost																		
Recurring Cost																		
CRS(I) systems(†)	-	-	-	47.402	532	25.218	44.877	897	40.255	41.197	213	8.775	-	-	-	41.197	213	8.775
Subtotal: Recurring Cost	-	-	-	-	-	*25.218*	-	-	*40.255*	-	-	*8.775*	-	-	-	-	-	*8.775*
Subtotal: Hardware Cost	**-**	**-**	**-**	**-**	**-**	***25.218***	**-**	**-**	***40.255***	**-**	**-**	***8.775***	**-**	**-**	**-**	**-**	**-**	***8.775***
Software Cost																		
Recurring Cost																		
CRS(I) software support	-	-	-	-	-	-	-	-	1.850	-	-	1.200	-	-	-	-	-	1.200
Subtotal: Recurring Cost	-	-	-	-	-	-	-	-	*1.850*	-	-	*1.200*	-	-	-	-	-	*1.200*
Subtotal: Software Cost	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***1.850***	**-**	**-**	***1.200***	**-**	**-**	**-**	**-**	**-**	***1.200***
Support - Contractor Logistics Support (CLS) Cost																		
Oversight	-	-	-	-	-	1.320	-	-	2.000	-	-	-	-	-	-	-	-	-
Subtotal: Support - Contractor Logistics Support (CLS) Cost	**-**	**-**	**-**	**-**	**-**	***1.320***	**-**	**-**	***2.000***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Support - Engineering Change Proposals Cost																		
Engineering Change Proposals	-	-	-	-	-	1.170	-	-	2.590	-	-	-	-	-	-	-	-	-
Subtotal: Support - Engineering Change Proposals Cost	**-**	**-**	**-**	**-**	**-**	***1.170***	**-**	**-**	***2.590***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Support - New Equipment Training (NET) Cost																		

Exhibit P-5, Cost Analysis: PB 2022 Army		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 20	**P-1 Line Item Number / Title:** 4868W12002 / Robotics and Applique Systems	**Item Number / Title [DODIC]:** G93696 / Common Robotic System - Individual (CRS-I)
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	

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

Cost Elements	Prior Years			FY 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 Total		
	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)
Equipment	-	-	-	-	-	0.630	-	-	1.780	-	-	0.450	-	-	-	-	-	0.450
Subtotal: Support - New Equipment Training (NET) Cost	**-**	**-**	**-**	**-**	**-**	***0.630***	**-**	**-**	***1.780***	**-**	**-**	***0.450***	**-**	**-**	**-**	**-**	**-**	***0.450***
Support - Program Management Cost																		
Government Management	-	-	-	-	-	2.003	-	-	2.298	-	-	2.200	-	-	-	-	-	2.200
Subtotal: Support - Program Management Cost	**-**	**-**	**-**	**-**	**-**	***2.003***	**-**	**-**	***2.298***	**-**	**-**	***2.200***	**-**	**-**	**-**	**-**	**-**	***2.200***
Support - Training Cost																		
Services	-	-	-	-	-	0.046	-	-	1.755	-	-	-	-	-	-	-	-	-
Subtotal: Support - Training Cost	**-**	**-**	**-**	**-**	**-**	***0.046***	**-**	**-**	***1.755***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Gross/Weapon System Cost	**-**	**-**	**-**	**57.118**	**532**	**30.387**	**61.221**	**858**	**52.528**	**59.272**	**213**	**12.625**	**-**	**-**	**-**	**59.272**	**213**	**12.625**

Remarks:
Based on the current execution of the program, FY 2021 Quantities should be 897. Quantities will be updated to adjust for actual execution data prior to the submission of the FY 2023 President's Budget.

Secondary Distribution		FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Army	Quantity	424	522	-	-	-
	Total Obligation Authority	24.168	34.686	-	-	-
ANG	Quantity	108	292	117	-	117
	Total Obligation Authority	6.219	15.496	7.462	-	7.462
AR	Quantity	-	44	96	-	96
	Total Obligation Authority	-	2.346	5.163	-	5.163
Total: Secondary Distribution	**Quantity**	**532**	**858**	**213**	**-**	**213**
	Total Obligation Authority	**30.387**	**52.528**	**12.625**	**-**	**12.625**

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2022 Army		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 20	P-1 Line Item Number / Title: 4868W12002 / Robotics and Applique Systems	Item Number / Title [DODIC]: G93696 / Common Robotic System - Individual (CRS-I)

Cost Elements	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
CRS(I) systems(†)		2020	QinetiQ North America / Waltham, MA	C / FFP	Warren, MI	Feb 2020	Nov 2020	532	47.402	N		
CRS(I) systems(†)		2021	QinetiQ North America / Waltham, MA	C / FFP	Warren, MI	Aug 2021	Dec 2021	897	44.877	N		
CRS(I) systems(†)		2022	QinetiQ North America / Waltham, MA	C / FFP	Warren, MI	Jul 2022	Dec 2022	213	41.197	N		

(†) indicates the presence of a P-21

Exhibit P-21, Production Schedule: PB 2022 Army		**Date:** May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 20	**P-1 Line Item Number / Title:** 4868W12002 / Robotics and Applique Systems	**Item Number / Title [DODIC]:** G93696 / Common Robotic System - Individual (CRS-I)

Cost Elements (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	
CRS(I) systems																															
	1	2020	ARMY	532	0	532					A -	-	-	-	-	-	-	-	-	20	20	20	20	20	27	40	60	70	80	80	75
	1	2021	ARMY	897	0	897																							A -	-	897
	1	2022	ARMY	213	0	213																									213
							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 2022 Army		**Date:** May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 20	**P-1 Line Item Number / Title:** 4868W12002 / Robotics and Applique Systems	**Item Number / Title [DODIC]:** G93696 / Common Robotic System - Individual (CRS-I)

Cost Elements (Units in Each)							Fiscal Year 2022												Fiscal Year 2023												BALANCE
										Calendar Year 2022												Calendar Year 2023									
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2021	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	
CRS(I) systems																															
	1	2020	ARMY	532	457	75	75																								0
	1	2021	ARMY	897	0	897	-	-	52	75	75	75	75	75	75	75	80	80	80	80											0
	1	2022	ARMY	213	0	213										A -	-	-	-	-	38	35	35	35	35	35					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 2022 Army		**Date:** May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 20	**P-1 Line Item Number / Title:** 4868W12002 / Robotics and Applique Systems	**Item Number / Title [DODIC]:** G93696 / Common Robotic System - Individual (CRS-I)

MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Month)			Procurement Leadtime (Months)							
					Initial				Reorder			
		MSR For 2022	1-8-5 For 2022	MAX For 2022	ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1	ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1
1	QinetiQ North America - Waltham, MA	30	40	80	0	5	9	14	0	10	5	15

Remarks:
Based on the current execution of the program, FY 2021 Quantities should be 897. Quantities will be updated to adjust for actual execution data prior to the submission of the FY 2023 President's Budget.

"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 2022 Army		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 20	**P-1 Line Item Number / Title:** 4868W12002 / Robotics and Applique Systems	**Item Number / Title [DODIC]:** G99595 / Common Robotic System-Individual (CRS-I)
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Procurement Quantity *(Units in Each)*	53	428	198	117	-	117
Gross/Weapon System Cost *($ in Millions)*	3.158	2.285	1.154	1.141	-	1.141
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	3.158	2.285	1.154	1.141	-	1.141
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**3.158**	**2.285**	**1.154**	**1.141**	**-**	**1.141**
(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)*	59.585	5.339	5.828	9.752	-	9.752

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

Cost Elements	Prior Years			FY 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 Total		
	Unit Cost *($ K)*	Qty *(Each)*	Total Cost *($ M)*	Unit Cost *($ K)*	Qty *(Each)*	Total Cost *($ M)*	Unit Cost *($ K)*	Qty *(Each)*	Total Cost *($ M)*	Unit Cost *($ K)*	Qty *(Each)*	Total Cost *($ M)*	Unit Cost *($ K)*	Qty *(Each)*	Total Cost *($ M)*	Unit Cost *($ K)*	Qty *(Each)*	Total Cost *($ M)*
Flyaway Cost																		
Non Recurring Cost																		
Universal Robotic Controller (URC)	-	-	0.343	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Non Recurring Cost	-	-	*0.343*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Flyaway Cost	**-**	**-**	***0.343***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Hardware Cost																		
Recurring Cost																		
Common Robotic Controller - Individual (CRS(I)(†)	51.226	53	2.715	5.325	400	2.130	5.045	198	0.999	8.547	117	1.000	-	-	-	8.547	117	1.000
Subtotal: Recurring Cost	-	-	*2.715*	-	-	*2.130*	-	-	*0.999*	-	-	*1.000*	-	-	-	-	-	*1.000*
Subtotal: Hardware Cost	**-**	**-**	***2.715***	**-**	**-**	***2.130***	**-**	**-**	***0.999***	**-**	**-**	***1.000***	**-**	**-**	**-**	**-**	**-**	***1.000***
Support - Program Management Cost																		
Government Management	-	-	0.100	-	-	0.155	-	-	0.155	-	-	0.141	-	-	-	-	-	0.141
Subtotal: Support - Program Management Cost	**-**	**-**	***0.100***	**-**	**-**	***0.155***	**-**	**-**	***0.155***	**-**	**-**	***0.141***	**-**	**-**	**-**	**-**	**-**	***0.141***
Gross/Weapon System Cost	**59.585**	**53**	**3.158**	**5.339**	**428**	**2.285**	**5.828**	**198**	**1.154**	**9.752**	**117**	**1.141**	**-**	**-**	**-**	**9.752**	**117**	**1.141**

Exhibit P-5, Cost Analysis: PB 2022 Army		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 20	**P-1 Line Item Number / Title:** 4868W12002 / Robotics and Applique Systems	**Item Number / Title [DODIC]:** G99595 / Common Robotic System-Individual (CRS-I)
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	

Secondary Distribution		FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Army	Quantity	342	198	-	-	-
	Total Obligation Authority	1.825	1.154	-	-	-
ANG	Quantity	86	-	117	-	117
	Total Obligation Authority	0.460	-	1.141	-	1.141
Total: Secondary Distribution	**Quantity**	**428**	**198**	**117**	**-**	**117**
	Total Obligation Authority	**2.285**	**1.154**	**1.141**	**-**	**1.141**

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2022 Army		**Date:** May 2021
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 Controller - Individual (CRS(I)		2020	QinetiQ North America / Waltham, MA	C / FFP	Warren, MI	Feb 2020	Nov 2020	400	5.325	N		
Common Robotic Controller - Individual (CRS(I)		2021	QinetiQ North America / Waltham, MA	C / FFP	Warren, MI	Jul 2021	Nov 2021	198	5.045	N		
Common Robotic Controller - Individual (CRS(I)		2022	QinetiQ North America / Waltham, MA	C / FFP	Warren, MI	Mar 2022	Oct 2022	117	8.547	N		

Exhibit P-5, Cost Analysis: PB 2022 Army		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 20	**P-1 Line Item Number / Title:** 4868W12002 / Robotics and Applique Systems	**Item Number / Title [DODIC]:** R06806 / Leader/Follower Applique (L/F)
ID Code (A=Service Ready, B=Not Service Ready) :	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	-	-	7.624	-	-	-
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	-	-	7.624	-	-	-
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**-**	**-**	**7.624**	**-**	**-**	**-**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)						
Initial Spares *($ in Millions)*	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Thousands)*	-	-	-	-	-	-

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

Cost Elements	Prior Years			FY 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 Total		
	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)
Hardware Cost																		
Non Recurring Cost																		
LF Support-Engineering Change Proposals Cost	-	-	-	-	-	-	-	-	1.894	-	-	-	-	-	-	-	-	-
Subtotal: Non Recurring Cost	-	-	-	-	-	-	-	-	*1.894*	-	-	-	-	-	-	-	-	-
Subtotal: Hardware Cost	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***1.894***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Software Cost																		
Recurring Cost																		
LF Software Support	-	-	-	-	-	-	-	-	1.637	-	-	-	-	-	-	-	-	-
Subtotal: Recurring Cost	-	-	-	-	-	-	-	-	*1.637*	-	-	-	-	-	-	-	-	-
Subtotal: Software Cost	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***1.637***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Logistics Cost																		
Recurring Cost																		
LF Contractor Logistics Support (CLS)	-	-	-	-	-	-	-	-	3.300	-	-	-	-	-	-	-	-	-
Subtotal: Recurring Cost	-	-	-	-	-	-	-	-	*3.300*	-	-	-	-	-	-	-	-	-
Subtotal: Logistics Cost	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***3.300***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Support - Program Management Cost																		
Government Management	-	-	-	-	-	-	-	-	0.793	-	-	-	-	-	-	-	-	-

Exhibit P-5, Cost Analysis: PB 2022 Army		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 20	**P-1 Line Item Number / Title:** 4868W12002 / Robotics and Applique Systems	**Item Number / Title [DODIC]:** R06806 / Leader/Follower Applique (L/F)
ID Code (A=Service Ready, B=Not Service Ready) :	**MDAP/MAIS Code:**	

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

Cost Elements	Prior Years			FY 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 Total		
	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	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 - Program Management Cost	-	-	-	-	-	-	-	-	***0.793***	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost	-	-	-	-	-	-	-	-	**7.624**	-	-	-	-	-	-	-	-	-

Secondary Distribution		FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Army	Quantity	-	-	-	-	-
	Total Obligation Authority	-	7.624	-	-	-
Total: Secondary Distribution	**Quantity**	-	-	-	-	-
	Total Obligation Authority	-	**7.624**	-	-	-

Exhibit P-5, Cost Analysis: PB 2022 Army		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 20	P-1 Line Item Number / Title: 4868W12002 / Robotics and Applique Systems	Item Number / Title [DODIC]: R12154 / Squad Multipurpose Equipment Transport (SMET)
ID Code (A=Service Ready, B=Not Service Ready) : B	MDAP/MAIS Code:	

Resource Summary	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Procurement Quantity *(Units in Each)*	-	24	203	148	-	148
Gross/Weapon System Cost *($ in Millions)*	-	8.768	28.555	29.448	-	29.448
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	-	8.768	28.555	29.448	-	29.448
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**-**	**8.768**	**28.555**	**29.448**	**-**	**29.448**
(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)*	-	365.333	140.665	198.973	-	198.973

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

Cost Elements	Prior Years			FY 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 Total		
	Unit Cost *($ K)*	Qty *(Each)*	Total Cost *($ M)*	Unit Cost *($ K)*	Qty *(Each)*	Total Cost *($ M)*	Unit Cost *($ K)*	Qty *(Each)*	Total Cost *($ M)*	Unit Cost *($ K)*	Qty *(Each)*	Total Cost *($ M)*	Unit Cost *($ K)*	Qty *(Each)*	Total Cost *($ M)*	Unit Cost *($ K)*	Qty *(Each)*	Total Cost *($ M)*
Hardware Cost																		
Recurring Cost																		
Spare & Repair Parts for CLS	-	-	-	-	-	0.400	-	-	0.400	-	-	0.400	-	-	-	-	-	0.400
Modular Mission Payloads & Tech Insertions / ECPs	-	-	-	-	-	0.500	-	-	3.815	-	-	5.726	-	-	-	-	-	5.726
S-MET Production Systems(†)	-	-	-	129.900	24	3.118	139.000	155	21.545	139.000	148	20.572	-	-	-	139.000	148	20.572
Subtotal: Recurring Cost	-	-	-	-	-	*4.018*	-	-	*25.760*	-	-	*26.698*	-	-	-	-	-	*26.698*
Subtotal: Hardware Cost	**-**	**-**	**-**	**-**	**-**	***4.018***	**-**	**-**	***25.760***	**-**	**-**	***26.698***	**-**	**-**	**-**	**-**	**-**	***26.698***
Package Fielding Cost																		
Recurring Cost																		
Total Package Fielding	-	-	-	-	-	0.500	-	-	0.500	-	-	0.500	-	-	-	-	-	0.500
Subtotal: Recurring Cost	-	-	-	-	-	*0.500*	-	-	*0.500*	-	-	*0.500*	-	-	-	-	-	*0.500*
Subtotal: Package Fielding Cost	**-**	**-**	**-**	**-**	**-**	***0.500***	**-**	**-**	***0.500***	**-**	**-**	***0.500***	**-**	**-**	**-**	**-**	**-**	***0.500***
Logistics Cost																		
Non Recurring Cost																		
Data Deliverables	-	-	-	-	-	1.425	-	-	0.445	-	-	0.400	-	-	-	-	-	0.400
Subtotal: Non Recurring Cost	-	-	-	-	-	*1.425*	-	-	*0.445*	-	-	*0.400*	-	-	-	-	-	*0.400*
Subtotal: Logistics Cost	**-**	**-**	**-**	**-**	**-**	***1.425***	**-**	**-**	***0.445***	**-**	**-**	***0.400***	**-**	**-**	**-**	**-**	**-**	***0.400***

Exhibit P-5, Cost Analysis: PB 2022 Army		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 20	**P-1 Line Item Number / Title:** 4868W12002 / Robotics and Applique Systems	**Item Number / Title [DODIC]:** R12154 / Squad Multipurpose Equipment Transport (SMET)
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	

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

Cost Elements	Prior Years			FY 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 Total		
	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)
Vehicles Cost																		
Non Recurring Cost																		
Production System Refurbishment	-	-	-	-	-	1.200	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Non Recurring Cost	-	-	-	-	-	*1.200*	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Vehicles Cost	**-**	**-**	**-**	**-**	**-**	***1.200***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Support - Contractor Logistics Support (CLS) Cost																		
Oversight	-	-	-	-	-	0.625	-	-	0.650	-	-	0.650	-	-	-	-	-	0.650
Subtotal: Support - Contractor Logistics Support (CLS) Cost	**-**	**-**	**-**	**-**	**-**	***0.625***	**-**	**-**	***0.650***	**-**	**-**	***0.650***	**-**	**-**	**-**	**-**	**-**	***0.650***
Support - Program Management Cost																		
Government Management	-	-	-	-	-	1.000	-	-	1.200	-	-	1.200	-	-	-	-	-	1.200
Subtotal: Support - Program Management Cost	**-**	**-**	**-**	**-**	**-**	***1.000***	**-**	**-**	***1.200***	**-**	**-**	***1.200***	**-**	**-**	**-**	**-**	**-**	***1.200***
Gross/Weapon System Cost	**-**	**-**	**-**	**365.333**	**24**	**8.768**	**140.665**	**203**	**28.555**	**198.973**	**148**	**29.448**	**-**	**-**	**-**	**198.973**	**148**	**29.448**

Remarks:
Based on the current execution of the program, FY 2021 Quantities should be 155. Quantities will be updated to adjust for actual execution data prior to the submission of the FY 2023 President's Budget. In FY 2022, overall increase in program support cost due to ramp up in production.

Secondary Distribution		FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Army	Quantity	24	194	64	-	64
	Total Obligation Authority	8.768	27.291	12.807	-	12.807
ANG	Quantity	-	9	84	-	84
	Total Obligation Authority	-	1.264	16.641	-	16.641
Total: Secondary Distribution	**Quantity**	**24**	**203**	**148**	**-**	**148**
	Total Obligation Authority	**8.768**	**28.555**	**29.448**	**-**	**29.448**

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2022 Army		**Date:** May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 20	**P-1 Line Item Number / Title:** 4868W12002 / Robotics and Applique Systems	**Item Number / Title [DODIC]:** R12154 / Squad Multipurpose Equipment Transport (SMET)

Cost Elements	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
S-MET Production Systems(†)		2020	General Dynamics Land Systems / London, ON	Option / FFP	Warren, MI	Jul 2020	Aug 2021	24	129.900	Y		Jan 2020
S-MET Production Systems(†)		2021	General Dynamics Land Systems / London, ON	Option / FFP	Warren, MI	Nov 2020	Aug 2021	155	139.000	Y		Jan 2020
S-MET Production Systems(†)		2022	General Dynamics Land Systems / London, ON	Option / FFP	Warren, MI	Nov 2021	Apr 2022	148	139.000	Y		Jan 2020

(†) indicates the presence of a P-21

Remarks:
FY20 Contract Award Date July 2020.

Exhibit P-21, Production Schedule: PB 2022 Army		**Date:** May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 20	**P-1 Line Item Number / Title:** 4868W12002 / Robotics and Applique Systems	**Item Number / Title [DODIC]:** R12154 / Squad Multipurpose Equipment Transport (SMET)

Cost Elements (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	
S-MET Production Systems																															
	1	2020	ARMY	24	0	24										A -	-	-	-	-	-	-	-	-	-	-	-	12	12		0
	1	2021	ARMY	155	0	155														A -	-	-	-	-	-	-	-	8	8		139
	1	2022	ARMY	148	0	148																									148
							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 2022 Army		**Date:** May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 20	**P-1 Line Item Number / Title:** 4868W12002 / Robotics and Applique Systems	**Item Number / Title [DODIC]:** R12154 / Squad Multipurpose Equipment Transport (SMET)

Cost Elements (Units in Each)							Fiscal Year 2022												Fiscal Year 2023												BALANCE
										Calendar Year 2022												Calendar Year 2023									
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2021	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	
S-MET Production Systems																															
	1	2020	ARMY	24	24	0																									0
	1	2021	ARMY	155	16	139	20	20	20	20	20	20	19																		0
	1	2022	ARMY	148	0	148		A -	-	-	-	-	1	20	20	20	20	20	20	20	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 2022 Army		**Date:** May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 20	**P-1 Line Item Number / Title:** 4868W12002 / Robotics and Applique Systems	**Item Number / Title [DODIC]:** R12154 / Squad Multipurpose Equipment Transport (SMET)

MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Month)			Procurement Leadtime (Months)							
					Initial				Reorder			
		MSR For 2022	1-8-5 For 2022	MAX For 2022	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 Land Systems - London, ON	5	15	20	0	2	6	8	0	2	5	7

Remarks:
Based on the current execution of the program, FY 2021 Quantities should be 155. Quantities will be updated to adjust for actual execution data prior to the submission of the FY 2023 President's Budget.

"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 2022 Army		Date: May 2021
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 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Procurement Quantity *(Units in Each)*	30	230	474	459	-	459
Gross/Weapon System Cost *($ in Millions)*	12.182	36.254	63.976	62.365	-	62.365
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	12.182	36.254	63.976	62.365	-	62.365
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**12.182**	**36.254**	**63.976**	**62.365**	**-**	**62.365**
(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)*	406.067	157.626	134.970	135.871	-	135.871

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

Cost Elements	Prior Years			FY 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 Total		
	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)
Hardware Cost																		
Recurring Cost																		
MTRS Robot(†)	126.000	32	4.032	102.000	236	24.072	101.000	493	49.793	101.000	459	46.359	-	-	-	101.000	459	46.359
MTRS CBRN kits	-	-	-	22.000	180	3.960	22.000	219	4.818	22.000	371	8.162	-	-	-	22.000	371	8.162
MTRS RDS kit	2.000	20	0.040	2.000	56	0.112	2.000	350	0.700	2.000	459	0.918	-	-	-	2.000	459	0.918
MTRS initial spares	9.000	20	0.180	9.000	236	2.124	9.000	477	4.293	9.000	413	3.717	-	-	-	9.000	413	3.717
TALON 5a Robots	156.000	2	0.312	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Recurring Cost	-	-	*4.564*	-	-	*30.268*	-	-	*59.604*	-	-	*59.156*	-	-	-	-	-	*59.156*
Subtotal: Hardware Cost	**-**	**-**	***4.564***	**-**	**-**	***30.268***	**-**	**-**	***59.604***	**-**	**-**	***59.156***	**-**	**-**	**-**	**-**	**-**	***59.156***
Software Cost																		
Recurring Cost																		
MTRS software sustainment	-	-	0.024	-	-	2.200	-	-	1.333	-	-	1.507	-	-	-	-	-	1.507
Subtotal: Recurring Cost	-	-	*0.024*	-	-	*2.200*	-	-	*1.333*	-	-	*1.507*	-	-	-	-	-	*1.507*
Subtotal: Software Cost	**-**	**-**	***0.024***	**-**	**-**	***2.200***	**-**	**-**	***1.333***	**-**	**-**	***1.507***	**-**	**-**	**-**	**-**	**-**	***1.507***
Support - Contractor Logistics Support (CLS) Cost																		
Oversight	-	-	0.740	-	-	2.000	-	-	1.195	-	-	-	-	-	-	-	-	-
Subtotal: Support - Contractor Logistics Support (CLS) Cost	**-**	**-**	***0.740***	**-**	**-**	***2.000***	**-**	**-**	***1.195***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Support - Data Cost																		
Technical Publications	-	-	4.033	-	-	0.246	-	-	0.246	-	-	0.246	-	-	-	-	-	0.246

Exhibit P-5, Cost Analysis: PB 2022 Army		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 20	**P-1 Line Item Number / Title:** 4868W12002 / Robotics and Applique Systems	**Item Number / Title [DODIC]:** R67050 / Man Transportable Robotic Sys Inc II (MTRS Inc II)
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	

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

Cost Elements	Prior Years			FY 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 Total		
	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)
Support Data Data	-	-	0.935	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Support - Data Cost	**-**	**-**	***4.968***	**-**	**-**	***0.246***	**-**	**-**	***0.246***	**-**	**-**	***0.246***	**-**	**-**	**-**	**-**	**-**	***0.246***
Support - Program Management Cost																		
Government Management	-	-	1.886	-	-	1.540	-	-	1.598	-	-	1.456	-	-	-	-	-	1.456
Subtotal: Support - Program Management Cost	**-**	**-**	***1.886***	**-**	**-**	***1.540***	**-**	**-**	***1.598***	**-**	**-**	***1.456***	**-**	**-**	**-**	**-**	**-**	***1.456***
Gross/Weapon System Cost	**406.067**	**30**	**12.182**	**157.626**	**230**	**36.254**	**134.970**	**474**	**63.976**	**135.871**	**459**	**62.365**	**-**	**-**	**-**	**135.871**	**459**	**62.365**

Remarks:
SEPM increases are due to government software sustainment cost during the production and deployment phase. Unit cost saving between FY 2020 and FY 2021 is due to increase in quantities ordered.
CBRN and RDS kits exceed the quantity of 2021 robots because EOD units require both kits and Program Office previously purchased 20 robots with no kits.
MTRS software upgrade cost are due to development of new software for MTRS systems (Multi-robot Operator Control Unit (MOCU) 4)).

Secondary Distribution		FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Army	Quantity	140	184	299	-	299
	Total Obligation Authority	22.067	24.834	40.619	-	40.619
ANG	Quantity	90	146	147	-	147
	Total Obligation Authority	14.187	19.706	19.979	-	19.979
AR	Quantity	-	144	13	-	13
	Total Obligation Authority	-	19.436	1.767	-	1.767
Total: Secondary Distribution	**Quantity**	**230**	**474**	**459**	**-**	**459**
	Total Obligation Authority	**36.254**	**63.976**	**62.365**	**-**	**62.365**

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2022 Army		Date: May 2021
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(†)		2020	FLIR/Endeavor / Chelmsford, MA	C / FFP	Warren, MI	Nov 2019	Aug 2020	236	102.000	N		
MTRS Robot(†)		2021	FLIR/Endeavor / Chelmsford, MA	C / FFP	Warren, MI	Nov 2020	Aug 2021	493	101.000	N		
MTRS Robot(†)		2022	FLIR/Endeavor / Chelmsford, MA	C / FFP	Warren, MI	Dec 2021	Jun 2022	459	101.000	N		

(†) indicates the presence of a P-21

Remarks:
Lapse in production for Fiscal Year 2021 is filled with other service deliverables.. OEM needs a six month lead time between contract award and production.
Company name changed to FLIR was formerly Endeavor.

Exhibit P-21, Production Schedule: PB 2022 Army		**Date:** May 2021
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 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	
MTRS Robot																															
Prior Years Deliveries: 32																															
	1	2020	ARMY	236	0	236		A -	-	-	-	-	-	-	-	-	18	12	34	34	34	34	34	34	2						0
	1	2021	ARMY	493	0	493														A -	-	-	-	-	-	-	-	-	41	41	411
	2	2022	ARMY	459	0	459																									459
							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 2022 Army		Date: May 2021
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 2022												Fiscal Year 2023												BALANCE
										Calendar Year 2022												Calendar Year 2023									
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2021	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																															
Prior Years Deliveries: 32																															
	1	2020	ARMY	236	236	0																									0
	1	2021	ARMY	493	82	411	41	41	41	41	41	41	41	41	41	42															0
	2	2022	ARMY	459	0	459			A -	-	-	-	-	-	33	43	50	38	38	38	38	38	38	37	36	32					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 2022 Army		**Date:** May 2021
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 2022	1-8-5 For 2022	MAX For 2022	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/Endeavor - Chelmsford, MA	15	50	75	0	6	6	12	0	2	6	8
2	FLIR/Endeavor - Chelmsford, MA	15	50	75	0	3	6	9	0	3	6	9

Remarks:
Company name changed to FLIR formerly Endeavor.

"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 2022 Army		Date: May 2021
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 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Procurement Quantity *(Units in Each)*	2,023	800	678	1,005	-	1,005
Gross/Weapon System Cost *($ in Millions)*	49.591	23.362	18.907	18.654	-	18.654
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	49.591	23.362	18.907	18.654	-	18.654
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**49.591**	**23.362**	**18.907**	**18.654**	**-**	**18.654**
(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)*	24.514	29.203	27.886	18.561	-	18.561

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

Cost Elements	Prior Years			FY 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 Total		
	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	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																		
MANUFACTURING (SBS PHASE 1)(†)	21.128	2,223	46.967	21.329	800	17.063	18.591	678	12.605	24.500	300	7.350	-	-	-	24.500	300	7.350
MANUFACTURING (SBS PHASE 2)(†)	-	-	-	-	-	-	-	-	-	10.462	705	7.376	-	-	-	10.462	705	7.376
SYSTEMS ENGINEERING/ PROGRAM MANAGEMENT (GOVERNMENT) (PMA)	-	-	0.583	-	-	1.274	-	-	1.369	-	-	1.396	-	-	-	-	-	1.396
SYSTEMS ENGINEERING/ PROGRAM MANAGEMENT (GOVERNMENT) (MATRIX SUPPORT)	-	-	1.643	-	-	1.196	-	-	1.015	-	-	1.079	-	-	-	-	-	1.079
TRAINING & FIELDING	-	-	0.397	-	-	0.267	-	-	0.369	-	-	0.275	-	-	-	-	-	0.275
INTITIAL SPARES (REPARABLES)	-	-	-	-	-	3.562	-	-	3.549	-	-	1.178	-	-	-	-	-	1.178
Subtotal: Recurring Cost	-	-	*49.590*	-	-	*23.362*	-	-	*18.907*	-	-	*18.654*	-	-	-	-	-	*18.654*
Subtotal: Flyaway Cost	**-**	**-**	***49.590***	**-**	**-**	***23.362***	**-**	**-**	***18.907***	**-**	**-**	***18.654***	**-**	**-**	**-**	**-**	**-**	***18.654***
Gross/Weapon System Cost	**24.514**	**2,023**	**49.591**	**29.203**	**800**	**23.362**	**27.886**	**678**	**18.907**	**18.561**	**1,005**	**18.654**	**-**	**-**	**-**	**18.561**	**1,005**	**18.654**

Exhibit P-5, Cost Analysis: PB 2022 Army		Date: May 2021
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:**	

Remarks:
The FY22 buy will procure a higher quantity of systems due to the planned Phase 2 SBS LRIP award. The Phase 2 variant will provide improved performance at a lower unit cost. The Phase 2 system is nearing completion of its prototype development stage with Vantage Robotics. Testing will continue through 1QFY22 with a production award in 2QFY22. To meet the FY22 fielding schedule a final procurement will be made of approximately 300 Phase 1 systems.

Secondary Distribution		FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Army	Quantity	400	339	503	-	503
	Total Obligation Authority	11.681	9.454	9.327	-	9.327
ANG	Quantity	400	339	502	-	502
	Total Obligation Authority	11.681	9.453	9.327	-	9.327
Total: Secondary Distribution	**Quantity**	**800**	**678**	**1,005**	**-**	**1,005**
	Total Obligation Authority	**23.362**	**18.907**	**18.654**	**-**	**18.654**

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2022 Army		Date: May 2021
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
MANUFACTURING (SBS PHASE 1)(†)		2020	Atlantic Dive Supply (ADS) / Virginia Beach, VA	C / IDIQ	DLA-TS	Apr 2020	Jul 2020	800	21.329	Y		
MANUFACTURING (SBS PHASE 1)(†)		2021	Atlantic Dive Supply (ADS) / Virginia Beach, VA	C / IDIQ	DLA-TS	Feb 2021	Sep 2021	678	18.591	Y		
MANUFACTURING (SBS PHASE 1)(†)		2022	TBD / TBD	C / IDIQ	TBD	Feb 2022	Jul 2022	300	24.500	Y		
MANUFACTURING (SBS PHASE 2)(†)		2022	TBD (Phase 2) / TBD	C / IDIQ	ACC-APG	Feb 2022	Sep 2022	705	10.462	Y		

(†) indicates the presence of a P-21

Remarks:
SBS Phase 2 systems will provide improved performance at a lower cost due to increased competition and a simpler design.

Exhibit P-21, Production Schedule: PB 2022 Army		**Date:** May 2021
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	
MANUFACTURING (SBS PHASE 1)																															
Prior Years Deliveries: 2223																															
	1	2020	ARMY	800	0	800							A -	-	-	45	55	60	60	60	60	60	60	60	60	60	60	55	45		0
	1	2021	ARMY	678	0	678																	A -	-	-	-	-	-	-	40	638
	2	2022	ARMY	300	0	300																									300
MANUFACTURING (SBS PHASE 2)																															
	3	2022	ARMY	705	0	705																									705
							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 2022 Army		Date: May 2021
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 2022												Fiscal Year 2023												BALANCE
							Calendar Year 2022												Calendar Year 2023												
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2021	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	
MANUFACTURING (SBS PHASE 1)																															
Prior Years Deliveries: 2223																															
	1	2020	ARMY	800	800	0																									0
	1	2021	ARMY	678	40	638	40	60	75	90	90	90	75	67	51																0
	2	2022	ARMY	300	0	300					A -	-	-	-	-	40	55	55	55	55	40										0
MANUFACTURING (SBS PHASE 2)																															
	3	2022	ARMY	705	0	705					A -	-	-	-	-	-	-	40	40	40	57	73	73	73	73	73	73	55	35		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 2022 Army		**Date:** May 2021
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 2022	1-8-5 For 2022	MAX For 2022	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	Atlantic Dive Supply (ADS) - Virginia Beach, VA	38	100	250	2	6	3	9	2	4	7	11
2	TBD - TBD	38	100	250	2	4	5	9	2	4	5	9
3	TBD (Phase 2) - TBD	38	100	250	2	4	5	9	2	4	7	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 2022 Army	Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 20: Engineer (Non-Construction) Equipment	**P-1 Line Item Number / Title:** 5913R63610 / Render Safe Sets kits Outfits

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

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	-	102.684	145.313	84.000	-	84.000	-	-	-	-	-	-
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	-	102.684	145.313	84.000	-	84.000	-	-	-	-	-	-
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**-**	**102.684**	**145.313**	**84.000**	**-**	**84.000**	**-**	**-**	**-**	**-**	**-**	**-**
(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)*	-	637.789	1,839.405	954.545	-	954.545	-	-	-	-	-	-

Description:

The Explosive Ordnance Disposal (EOD) Render Safe (RS) Sets, Kits, and Outfits (SKO) provides capabilities needed for EOD teams to render safe US and foreign ordnance and improvised explosive devices, enabling ground force commanders to retain freedom of maneuver and secure lines of communications.

EOD RS SKO equips EOD teams with: low light visual augmentation system, dismounted operations protection, localized incident site protection, buried IED detection, dismounted X-ray imager, X-ray generator, trace detection (explosives, CBRN, and drugs), unmanned aerial system, power management, gamma and neutron search and detection, and render safe initiation. The RS SKO kit equips the three (3) EOD teams in a platoon. Each EOD team receives eleven (11) capabilities for a total of thirty-six (36) items in RS SKO kit. Some of the capabilities in the kit are also needed so that the EOD Team Leaders assigned to advise in the Security Force Assistance Brigades (SFABs) can maintain proficiency. The capabilities include electronic countermeasures, dismounted X-Ray imager, and X-Ray generator. EOD teams also need additional tools and equipment such as but not limited to, hook and line kits, disruptors, etc. to conduct render safe operations. The Army Acquisition Objective (AAO) for EOD RS SKO is 176.

Secondary Distribution		FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026
Army	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	79.775	145.214	61.090	-	61.090	-	-	-	-
ANG	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	22.909	0.099	22.910	-	22.910	-	-	-	-
Total: Secondary Distribution	**Quantity**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
	Total Obligation Authority	**102.684**	**145.313**	**84.000**	**-**	**84.000**	**-**	**-**	**-**	**-**

Exhibit P-40, Budget Line Item Justification: PB 2022 Army		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 20: Engineer (Non-Construction) Equipment	**P-1 Line Item Number / Title:** 5913R63610 / Render Safe Sets kits Outfits	
ID Code (A=Service Ready, B=Not Service Ready): B	**Program Elements for Code B Items:** N/A	**Other Related Program Elements:** 0654808A
Line Item MDAP/MAIS Code: N/A		

Exhibits Schedule					Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/ MAIS Code	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*
P-5	R63701 / Render Safe Sets Kits Outfits	P-5a, P-21	A		- / -	- / 102.684	- / 145.313	- / 84.000	- / -	- / 84.000
P-40	**Total Gross/Weapon System Cost**				**- / -**	**- / 102.684**	**- / 145.313**	**- / 84.000**	**- / -**	**- / 84.000**

*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 2022 base procurement dollars of $84.000 million supports procurement of 44 Render Safe Set Kits Outfits (RS SKO).

FY2022 base procurement dollars of $42.000 million is to support the Direct War Cost for Operation Inherent Resolve.

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 2022 Army		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 20	**P-1 Line Item Number / Title:** 5913R63610 / Render Safe Sets kits Outfits	**Item Number / Title [DODIC]:** R63701 / Render Safe Sets Kits Outfits
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	-	102.684	145.313	84.000	-	84.000
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	-	102.684	145.313	84.000	-	84.000
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**-**	**102.684**	**145.313**	**84.000**	**-**	**84.000**
(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)*	-	637.789	1,839.405	954.545	-	954.545

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

Cost Elements	Prior Years			FY 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 Total		
	Unit Cost *($ K)*	Qty *(Each)*	Total Cost *($ M)*	Unit Cost *($ K)*	Qty *(Each)*	Total Cost *($ M)*	Unit Cost *($ K)*	Qty *(Each)*	Total Cost *($ M)*	Unit Cost *($ K)*	Qty *(Each)*	Total Cost *($ M)*	Unit Cost *($ K)*	Qty *(Each)*	Total Cost *($ M)*	Unit Cost *($ K)*	Qty *(Each)*	Total Cost *($ M)*
Hardware Cost																		
Recurring Cost																		
Render Safe (RS) Sets, Kits, and Outfits (SKO)(†)	-	-	-	1,551.696	53	82.240	1,551.696	79	122.584	1,551.696	44	68.275	-	-	-	1,551.696	44	68.275
Subtotal: Recurring Cost	-	-	-	-	-	*82.240*	-	-	*122.584*	-	-	*68.275*	-	-	-	-	-	*68.275*
Subtotal: Hardware Cost	**-**	**-**	**-**	**-**	**-**	***82.240***	**-**	**-**	***122.584***	**-**	**-**	***68.275***	**-**	**-**	**-**	**-**	**-**	***68.275***
Package Fielding Cost																		
Recurring Cost																		
Shipping and Transportation	-	-	-	-	-	0.156	-	-	1.000	-	-	0.500	-	-	-	-	-	0.500
Subtotal: Recurring Cost	-	-	-	-	-	*0.156*	-	-	*1.000*	-	-	*0.500*	-	-	-	-	-	*0.500*
Subtotal: Package Fielding Cost	**-**	**-**	**-**	**-**	**-**	***0.156***	**-**	**-**	***1.000***	**-**	**-**	***0.500***	**-**	**-**	**-**	**-**	**-**	***0.500***
Support - Acceptance Testing Cost																		
First Article Test	-	-	-	-	-	0.050	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Support - Acceptance Testing Cost	**-**	**-**	**-**	**-**	**-**	***0.050***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Support - Initial Spares and Repair Parts Cost																		
Initial Spares and Repair Parts	-	-	-	-	-	10.190	-	-	11.595	-	-	7.000	-	-	-	-	-	7.000
Subtotal: Support - Initial Spares and Repair Parts Cost	**-**	**-**	**-**	**-**	**-**	***10.190***	**-**	**-**	***11.595***	**-**	**-**	***7.000***	**-**	**-**	**-**	**-**	**-**	***7.000***

Exhibit P-5, Cost Analysis: PB 2022 Army		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 20	**P-1 Line Item Number / Title:** 5913R63610 / Render Safe Sets kits Outfits	**Item Number / Title [DODIC]:** R63701 / Render Safe Sets Kits Outfits
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	

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

Cost Elements	Prior Years			FY 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 Total		
	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)
Support - New Equipment Training (NET) Cost																		
Equipment	-	-	-	-	-	1.000	-	-	1.000	-	-	1.000	-	-	-	-	-	1.000
Subtotal: Support - New Equipment Training (NET) Cost	**-**	**-**	**-**	**-**	**-**	***1.000***	**-**	**-**	***1.000***	**-**	**-**	***1.000***	**-**	**-**	**-**	**-**	**-**	***1.000***
Support - Production Engineering Cost																		
Production Engineering	-	-	-	-	-	4.000	-	-	4.000	-	-	3.500	-	-	-	-	-	3.500
Subtotal: Support - Production Engineering Cost	**-**	**-**	**-**	**-**	**-**	***4.000***	**-**	**-**	***4.000***	**-**	**-**	***3.500***	**-**	**-**	**-**	**-**	**-**	***3.500***
Support - Program Management Cost																		
Government Management	-	-	-	-	-	5.048	-	-	5.134	-	-	3.725	-	-	-	-	-	3.725
Subtotal: Support - Program Management Cost	**-**	**-**	**-**	**-**	**-**	***5.048***	**-**	**-**	***5.134***	**-**	**-**	***3.725***	**-**	**-**	**-**	**-**	**-**	***3.725***
Gross/Weapon System Cost	**-**	**-**	**-**	**637.789**	**-**	**102.684**	**1,839.405**	**-**	**145.313**	**954.545**	**-**	**84.000**	**-**	**-**	**-**	**954.545**	**-**	**84.000**

Secondary Distribution		FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Army	Quantity	-	-	-	-	-
	Total Obligation Authority	79.775	145.214	61.090	-	61.090
ANG	Quantity	-	-	-	-	-
	Total Obligation Authority	22.909	0.099	22.910	-	22.910
Total: Secondary Distribution	**Quantity**	**-**	**-**	**-**	**-**	**-**
	Total Obligation Authority	**102.684**	**145.313**	**84.000**	**-**	**84.000**

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2022 Army		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 20	P-1 Line Item Number / Title: 5913R63610 / Render Safe Sets kits Outfits	Item Number / Title [DODIC]: R63701 / Render Safe Sets Kits Outfits

Cost Elements	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
Render Safe (RS) Sets, Kits, and Outfits (SKO)(†)		2020	Defense Logistics Agency (DLA) / Philadelphia, PA	MIPR	Philadelphia, PA	Jun 2020	Jan 2021	53	1,551.696	Y		
Render Safe (RS) Sets, Kits, and Outfits (SKO)(†)		2021	Defense Logistics Agency (DLA) / Philadelphia, PA	MIPR	Philadelphia, PA	Jun 2021	Jan 2022	79	1,551.696	Y		
Render Safe (RS) Sets, Kits, and Outfits (SKO)(†)		2022	Defense Logistics Agency (DLA) / Philadelphia, PA	MIPR	Philadelphia, PA	Jun 2022	Jan 2023	44	1,551.696	Y		

(†) indicates the presence of a P-21

Remarks:
Acquire commercial off-the-shelf systems (COTs) using Defense Logistics Agency (DLA) and other Army contract vehicles.

Exhibit P-21, Production Schedule: PB 2022 Army		**Date:** May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 20	**P-1 Line Item Number / Title:** 5913R63610 / Render Safe Sets kits Outfits	**Item Number / Title [DODIC]:** R63701 / Render Safe Sets Kits Outfits

Cost Elements (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	
Render Safe (RS) Sets, Kits, and Outfits (SKO)																															
	1	2020	ARMY	53	0	53									A -	-	-	-	-	-	-	5	5	5	5	5	5	5	5	5	8
	1	2021	ARMY	79	0	79																					A -	-	-	-	79
	1	2022	ARMY	44	0	44																									44
							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 2022 Army		**Date:** May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 20	**P-1 Line Item Number / Title:** 5913R63610 / Render Safe Sets kits Outfits	**Item Number / Title [DODIC]:** R63701 / Render Safe Sets Kits Outfits

Cost Elements (Units in Each)							Fiscal Year 2022												Fiscal Year 2023												BALANCE
										Calendar Year 2022												Calendar Year 2023									
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2021	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	
Render Safe (RS) Sets, Kits, and Outfits (SKO)																															
	1	2020	ARMY	53	45	8	5	3																							0
	1	2021	ARMY	79	0	79	-	-	-	7	7	7	7	7	7	7	7	7	7	7	2										0
	1	2022	ARMY	44	0	44									A -	-	-	-	-	-	-	5	5	5	5	5	5	5	5	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 2022 Army		**Date:** May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 20	**P-1 Line Item Number / Title:** 5913R63610 / Render Safe Sets kits Outfits	**Item Number / Title [DODIC]:** R63701 / Render Safe Sets Kits Outfits

MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Month)			Procurement Leadtime (Months)							
					Initial				Reorder			
		MSR For 2022	1-8-5 For 2022	MAX For 2022	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	Defense Logistics Agency (DLA) - Philadelphia, PA	1	5	7	6	6	6	12	3	3	3	6

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

Exhibit P-40, Budget Line Item Justification: PB 2022 Army	Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 20: Engineer (Non-Construction) Equipment	**P-1 Line Item Number / Title:** 8500R12001 / Family of Boats and Motors

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

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	17.528	5.745	5.289	-	-	-	-	-	-	-	-	-
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	17.528	5.745	5.289	-	-	-	-	-	-	-	-	-
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**17.528**	**5.745**	**5.289**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
(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 Family of Boats and Motors (FoBaM) consists of 7-person Inflatable Combat Raiding Craft (I-CRC), 15 person Inflatable Combat Assault Craft (I-CAC), Common Motor, and Rigid Inflatable Boat (RIB). The FoBaM Program supports the critical large scale ground combat operation (GAP #8), division wet gap crossing. The 7-person I-CRC, 15-person I-CAC, Common Motor and Rigid Inflatable Boat (RIB) replaces current outdated legacy systems to support Soldier lethality. Army Acquisition Objective (AAO) for FoBaM is: 7-person I-CRC 394, 15-person I-CAC 563, Common Motor 967 and RIB 23. The AAO quantities increased by 60 per program for Common Motors and 15-Man Boat.

Secondary Distribution		FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026
Army	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	4.337	1.520	-	-	-	-	-	-	-
ANG	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	1.408	1.473	-	-	-	-	-	-	-
AR	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	-	2.296	-	-	-	-	-	-	-
Total: Secondary Distribution	**Quantity**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
	Total Obligation Authority	**5.745**	**5.289**	**-**	**-**	**-**	**-**	**-**	**-**	**-**

Justification:

R12001 has no FY2022 funding request.

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-40, Budget Line Item Justification: PB 2022 Army		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 20: Engineer (Non-Construction) Equipment	**P-1 Line Item Number / Title:** 8500R12001 / Family of Boats and Motors	
ID Code (A=Service Ready, B=Not Service Ready): A	**Program Elements for Code B Items:** N/A	**Other Related Program Elements:** N/A
Line Item MDAP/MAIS Code: N/A		

Exhibit P-40, Budget Line Item Justification: PB 2022 Army	Date: May 2021
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 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026	To Complete	Total
Procurement Quantity *(Units in Each)*	137	0	282	121	-	121	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	143.737	5.876	8.570	7.116	-	7.116	-	-	-	-	-	-
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	143.737	5.876	8.570	7.116	-	7.116	-	-	-	-	-	-
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**143.737**	**5.876**	**8.570**	**7.116**	**-**	**7.116**	**-**	**-**	**-**	**-**	**-**	**-**
(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)*	1,049.175	-	30.390	58.810	-	58.810	-	-	-	-	-	-

Description:

This line supports the Army Network Modernization Strategy Line of Effort #4, Command Post (CP). Near term objectives are the delivery of Improved Environmental Control Units (IECUs) to support CP Directed Requirements.

This budget line represents the Army's family of Improved Environmental Control Units (IECUs), commonly known as Air Conditioners. IECUs provide cooling and supplemental heating for Army tents and shelters. Systems range in size from 9,000 to 60,000 British Thermal Units/hour (BTU/hr) and are powered by common electrical currents supplied by both mobile electric power systems and standard commercial facilities. IECUs also provide dehumidification and filtering of air in support of environmentally sensitive electronic equipment in mobile shelters and vans. IECUs support critical electronic equipment that would not support the Army mission without proper environmental control. IECUs support numerous major tactical weapon systems. The majority of the supported weapon systems are command, control, and communication items. Other applications include medical facilities, expeditionary basing, support equipment, satellite communications, intelligence gathering systems, petroleum and water logistics laboratories, electronic shop sets, Test Measurement and Diagnostic Equipment (TMDE), aviation shop sets and topographic support sets.

The IECU program will provide a new generation of Environmental Control Units (ECUs) that use environmentally approved refrigerants, with zero ozone-depleting chemicals (ODCs), to replace the current Military Standard (MIL-STD) Family of ECUs. IECUs are required to replace currently fielded environmental control units in order to comply with statutory and regulatory restrictions on the use of Class II Ozone Depleting Chemicals (ODCs) and to increase the performance of military ECUs. IECUs operate at wider operating temperatures, are more ruggedized than commercial ECUs, and employ embedded diagnostics and automatic safety controls. Technical improvements over existing military-standard ECUs will yield significant fuel and weight savings, reduction in scheduled maintenance, and increased reliability.

60,000 (3 phase / 50-60 hertz) BTUH (British Thermal Units per Hour) Army Acquisition Objective (AAO) = 3,019
9,000 (single phase / 60 hertz) BTUH AAO = 1,112
18,000 (3 phase / 60 hertz / 208V) BTUH AAO = 3,827
18,000 (single phase / 60 hertz / 230V) BTUH AAO= 457
36,000 (3 phase / 60 hertz) BTUH AAO= 746

Note: They are required to fill existing shortages or provide replacement for assets that are over age, non-supportable, and non-repairable. The IECUs are critical to the systems they support. Additionally, IECUs are required to fill urgent shortages on new fieldings of high priority weapon systems. They are used in select shelters which house critical life-saving operations in Combat Support Hospitals and storage of perishable supplies in Brigade Support Battalions. The 9,000 BTU/hr, 18,000 BTU/hr, 36,000 BTU/hr, and 60,000 BTU/hr IECUs provide an EPA compliant capability to the force structure before commercial/

Exhibit P-40, Budget Line Item Justification: PB 2022 Army		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 25: Combat Service Support Equipment	**P-1 Line Item Number / Title:** 0100MF9000 / Heaters and ECU's	
ID Code (A=Service Ready, B=Not Service Ready):	**Program Elements for Code B Items:** N/A	**Other Related Program Elements:** 0608804A
Line Item MDAP/MAIS Code: N/A		

military stocks of previously used refrigerant are exhausted and no longer available. IECUs provide essential air conditioning, dehumidification and filtering of air in support of environmentally sensitive electronic equipment in mobile shelters and vans critical to the CP mission and are a critical component of multiple mobile weapons systems to include PATRIOT, THAAD, and MLRS. Present and emerging command, control, communications, computers, intelligence, surveillance, and reconnaissance (C4ISR) systems require environmental control to moderate the environmental temperatures in which these systems operate.

All OCO funding is Active Component.

Secondary Distribution		FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026
Army	Quantity	-	190	71	-	71	-	-	-	-
	Total Obligation Authority	4.772	5.726	4.209	-	4.209	-	-	-	-
ANG	Quantity	-	67	36	-	36	-	-	-	-
	Total Obligation Authority	0.594	2.078	2.135	-	2.135	-	-	-	-
AR	Quantity	-	25	14	-	14	-	-	-	-
	Total Obligation Authority	0.510	0.766	0.772	-	0.772	-	-	-	-
Total: Secondary Distribution	**Quantity**	**-**	**282**	**121**	**-**	**121**	**-**	**-**	**-**	**-**
	Total Obligation Authority	**5.876**	**8.570**	**7.116**	**-**	**7.116**	**-**	**-**	**-**	**-**

Exhibit P-40, Budget Line Item Justification: PB 2022 Army		Date: May 2021
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 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/ MAIS Code	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*
P-5	MF9303 / IMPROVED ENVIRONMENTAL CONTROL UNITS	P-5a			137 / 143.737	0 / 5.876	282 / 8.570	121 / 7.116	- / -	121 / 7.116
P-40	**Total Gross/Weapon System Cost**				**137 / 143.737**	**0 / 5.876**	**282 / 8.570**	**121 / 7.116**	**- / -**	**121 / 7.116**

*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 22 base procurement dollars in the amount of $7.116 million supports the family of Improved Environmental Control Units (IECU) and Base requirements. Funding will procure 21 units of 9,000 BTU/hr (British Thermal Units) IECUs, 63 units of 18,000 BTU/hr 208V IECUs, 14 units of 18,000 BTU/hr 230V IECUs and 17 units of 36,000 BTU/hr IECUs and 6 units of 60,000 BTU/hr IECUs to support testing on a new contract. 9/18/36K IECUs units being procured are required as a component or separately authorized in support of fielded tactical weapon systems. 60K IECUs will replace obsolete and unsupportable legacy units to provide chemical-biological (CB) contamination capable environmental control for field hospitals.

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.

FY20 IECU quantities are reduced/zeroed because planned production of IECUs was not able to be executed due to contractor issues that resulted in curtailing further orders and ending the contract earlier than planned. A new contract solicitation is being prepared. FY20 funds were used primarily to support IECU program system engineering and program management including engineering an IECU variant model to meet unique requirements for integration into the Next Generation Automated Test System (NGATS).

Exhibit P-5, Cost Analysis: PB 2022 Army		Date: May 2021
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 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Procurement Quantity *(Units in Each)*	137	0	282	121	-	121
Gross/Weapon System Cost *($ in Millions)*	143.737	5.876	8.570	7.116	-	7.116
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	143.737	5.876	8.570	7.116	-	7.116
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**143.737**	**5.876**	**8.570**	**7.116**	**-**	**7.116**
(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)*	1,049.175	-	30.390	58.810	-	58.810

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

Cost Elements	Prior Years			FY 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 Total		
	Unit Cost *($ K)*	Qty *(Each)*	Total Cost *($ M)*	Unit Cost *($ K)*	Qty *(Each)*	Total Cost *($ M)*	Unit Cost *($ K)*	Qty *(Each)*	Total Cost *($ M)*	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	-	-	24.290	-	-	0.752	-	-	0.900	-	-	0.910	-	-	-	-	-	0.910
2. Engineering Change Orders	-	-	5.472	-	-	4.057	-	-	0.154	-	-	0.151	-	-	-	-	-	0.151
3. Testing	-	-	4.330	-	-	-	-	-	-	-	-	1.000	-	-	-	-	-	1.000
4. System Fielding Support	-	-	2.193	-	-	0.311	-	-	0.761	-	-	0.356	-	-	-	-	-	0.356
5. System Assessment	-	-	1.205	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6. Logistic Support	-	-	29.996	-	-	0.700	-	-	1.000	-	-	1.020	-	-	-	-	-	1.020
7. Data	-	-	4.495	-	-	-	-	-	-	-	-	1.000	-	-	-	-	-	1.000
8. Program Management Support	-	-	22.059	-	-	0.056	-	-	0.257	-	-	0.201	-	-	-	-	-	0.201
9,000 BTU/H ECU(†)	7.493	584	4.376	-	-	-	16.481	54	0.890	16.857	21	0.354	-	-	-	16.857	21	0.354
18,000 BTU/ H ECU (208V 3PH/50/60Hz)(†)	8.463	879	7.439	-	-	-	20.045	155	3.107	20.508	63	1.292	-	-	-	20.508	63	1.292
18,000 BTU/ H ECU (230V 1PH/50/60Hz)(†)	8.463	365	3.089	-	-	-	20.059	34	0.682	20.500	14	0.287	-	-	-	20.500	14	0.287
36,000 BTU/H ECU(†)	10.767	430	4.630	-	-	-	21.000	39	0.819	21.471	17	0.365	-	-	-	21.471	17	0.365

Exhibit P-5, Cost Analysis: PB 2022 Army		Date: May 2021
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 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 Total		
	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	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	-	-	-	-	-	-	30.000	6	0.180	-	-	-	30.000	6	0.180
Subtotal: Recurring Cost	-	-	*143.738*	-	-	*5.876*	-	-	*8.570*	-	-	*7.116*	-	-	-	-	-	*7.116*
Subtotal: Flyaway Cost	**-**	**-**	***143.738***	**-**	**-**	***5.876***	**-**	**-**	***8.570***	**-**	**-**	***7.116***	**-**	**-**	**-**	**-**	**-**	***7.116***
Gross/Weapon System Cost	**1,049.175**	**137**	**143.737**	**-**	**0**	**5.876**	**30.390**	**282**	**8.570**	**58.810**	**121**	**7.116**	**-**	**-**	**-**	**58.810**	**121**	**7.116**

Secondary Distribution		FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Army	Quantity	-	190	71	-	71
	Total Obligation Authority	4.772	5.726	4.209	-	4.209
ANG	Quantity	-	67	36	-	36
	Total Obligation Authority	0.594	2.078	2.135	-	2.135
AR	Quantity	-	25	14	-	14
	Total Obligation Authority	0.510	0.766	0.772	-	0.772
Total: Secondary Distribution	**Quantity**	**0**	**282**	**121**	**-**	**121**
	Total Obligation Authority	**5.876**	**8.570**	**7.116**	**-**	**7.116**

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2022 Army		Date: May 2021
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		2020	TFAB Defense / Madison, AL	C / FFP	ACC-APG Natick, MA	Feb 2020	Dec 2020	0	0.000	Y	Dec 2016	Mar 2017
9,000 BTU/H ECU		2021	TBD / TBD	C / FFP	ACC-APG Natick, MA	Aug 2021	May 2022	54	16.481	Y	Jan 2021	Mar 2021
9,000 BTU/H ECU		2022	TBD / TBD	C / FFP	ACC-APG Natick, MA	Feb 2022	Dec 2022	21	16.857	Y	Jan 2021	Mar 2021
18,000 BTU/H ECU (208V 3PH/50/60Hz)		2020	TFAB Defense / Madison, AL	C / FFP	ACC-APG Natick, MA	Feb 2020	Dec 2020	0	0.000	Y	Dec 2016	Mar 2017
18,000 BTU/H ECU (208V 3PH/50/60Hz)		2021	TBD / TBD	C / FFP	ACC-APG Natick, MA	Aug 2021	May 2022	155	20.045	Y	Jan 2021	Mar 2021
18,000 BTU/H ECU (208V 3PH/50/60Hz)		2022	TBD / TBD	C / FFP	ACC-APG Natick, MA	Feb 2022	Dec 2022	63	20.508	Y	Jan 2021	Mar 2021
18,000 BTU/H ECU (230V 1PH/50/60Hz)		2020	TFAB Defense / Madison, AL	C / FFP	ACC-APG Natick, MA	Feb 2020	Dec 2020	0	0.000	Y	Feb 2019	Mar 2017
18,000 BTU/H ECU (230V 1PH/50/60Hz)		2021	TBD / TBD	C / FFP	ACC-APG Natick, MA	Aug 2021	May 2022	34	20.059	Y	Jan 2021	Mar 2021
18,000 BTU/H ECU (230V 1PH/50/60Hz)		2022	TBD / TBD	C / FFP	ACC-APG Natick, MA	Feb 2022	Dec 2022	14	20.500	Y	Jan 2021	Mar 2021
36,000 BTU/H ECU		2020	TFAB Defense / Madison, AL	C / FFP	ACC-APG Natick, MA	Feb 2020	Dec 2020	0	0.000	Y	Dec 2016	Mar 2017
36,000 BTU/H ECU		2021	TBD / TBD	C / FFP	ACC-APG Natick, MA	Aug 2021	May 2022	39	21.000	Y	Jan 2021	Mar 2021
36,000 BTU/H ECU		2022	TBD / TBD	C / FFP	ACC-APG Natick, MA	Feb 2022	Dec 2022	17	21.471	Y	Jan 2021	Mar 2021
60,000 BTU/H IECU (Full Rate)		2022	TBD / TBD	C / FFP	ACC-APG Natick, MA	May 2022	Feb 2023	6	30.000	N	Sep 2021	Nov 2021

Exhibit P-40, Budget Line Item Justification: PB 2022 Army	Date: May 2021
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 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	263.574	-	-	1.286	-	1.286	-	-	-	-	-	-
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	263.574	-	-	1.286	-	1.286	-	-	-	-	-	-
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**263.574**	**-**	**-**	**1.286**	**-**	**1.286**	**-**	**-**	**-**	**-**	**-**	**-**
(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 Fiscal Year 1990 National Defense Authorization Act. The purpose of the SEP is to provide an impetus for increasing the combat effectiveness of our Army Infantryman/Soldiers through the procurement of Commercial Off the Shelf (COTS), Government Off the Shelf (GOTS) or Non-Developmental Item (NDI) of lighter, more lethal weapons and improved equipment, including lighter, more comfortable loadbearing equipment, field gear, survivability items, communications equipment, navigational aids and training capabilities for Soldier evaluation. The SEP evaluates available COTS, GOTS or NDI equipment to determine if items have the potential to provide increased combat effectiveness to the Soldier. The SEP OPA3 funding provides a means of procuring individual equipment designed to increase the Soldiers' operational effectiveness for evaluation.

Secondary Distribution		FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026
Army	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	-	-	1.286	-	1.286	-	-	-	-
Total: Secondary Distribution	**Quantity**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
	Total Obligation Authority	**-**	**-**	**1.286**	**-**	**1.286**	**-**	**-**	**-**	**-**

Justification:

FY22 base procurement funding in the amount of $1.286 million supports the procurement of approved COTS, GOTS and NID 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 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.

Soldier Enhancement is a new start in FY 2022.

Exhibit P-40, Budget Line Item Justification: PB 2022 Army	Date: May 2021
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 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026	To Complete	Total
Procurement Quantity *(Units in Each)*	3,501	5,000	4,650	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	103.096	9.382	8.346	9.741	-	9.741	-	-	-	-	-	-
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	103.096	9.382	8.346	9.741	-	9.741	-	-	-	-	-	-
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**103.096**	**9.382**	**8.346**	**9.741**	**-**	**9.741**	**-**	**-**	**-**	**-**	**-**	**-**
(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)*	29.448	1.876	1.795	-	-	-	-	-	-	-	-	-

Description:

The Personnel Recovery Support System (PRSS) consists of items including Personnel Recovery Devices (PRD), e.g. Personal Locator Beacons, and other Personnel Recovery Support Equipment (PRSE) items to report and locate isolated, missing, detained and captured Soldiers.

Secondary Distribution		FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026
Army	Quantity	5,000	4,650	-	-	-	-	-	-	-
	Total Obligation Authority	9.382	8.346	9.741	-	9.741	-	-	-	-
Total: Secondary Distribution	**Quantity**	**5,000**	**4,650**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
	Total Obligation Authority	**9.382**	**8.346**	**9.741**	**-**	**9.741**	**-**	**-**	**-**	**-**

Exhibit P-40, Budget Line Item Justification: PB 2022 Army	Date: May 2021
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 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/ MAIS Code	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*
P-5	G01101 / Personnel Recovery Support System (PRSS)	P-5a			3,501 / 103.096	5,000 / 9.382	4,650 / 8.346	- / 9.741	- / -	- / 9.741
P-40	**Total Gross/Weapon System Cost**				**3,501 / 103.096**	**5,000 / 9.382**	**4,650 / 8.346**	**- / 9.741**	**- / -**	**- / 9.741**

*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 22 procurement dollars in the amount of $9.741 million is in support of the procurement of PRSE products that support the Army's capability to report and locate isolated, missing, detained and captured Soldiers. This also funds the purchase of PRDs and associated support services by the active and reserve components of the Armed Forces. Funding procures equipment and materiel to support a balanced investment strategy for the Army's approved force structure.

FY2022 base procurement dollars of $5.204 million will support the Direct War Cost for Operation Inherent Resolve.

The Army Acquisition Objective (AAO) for the PRSS 1b Secure PRD is 50,790.

Exhibit P-5, Cost Analysis: PB 2022 Army		Date: May 2021
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 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Procurement Quantity *(Units in Each)*	3,501	5,000	4,650	-	-	-
Gross/Weapon System Cost *($ in Millions)*	103.096	9.382	8.346	9.741	-	9.741
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	103.096	9.382	8.346	9.741	-	9.741
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**103.096**	**9.382**	**8.346**	**9.741**	**-**	**9.741**
(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)*	29.448	1.876	1.795	-	-	-

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

Cost Elements	Prior Years			FY 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 Total		
	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	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(†)	0.989	54,940	54.350	0.936	1,707	1.598	0.875	2,646	2.314	0.831	3,231	2.685	-	-	-	0.831	3,231	2.685
Secure Personal Locator Beacons(†)	-	-	-	0.838	5,000	4.188	0.852	3,287	2.802	0.838	5,000	4.188	-	-	-	0.838	5,000	4.188
Initial Spares & Repair Parts	-	-	3.270	-	-	0.014	-	-	0.014	-	-	0.010	-	-	-	-	-	0.010
Support Equipment	-	-	6.565	-	-	0.336	-	-	0.019	-	-	-	-	-	-	-	-	-
Systems Test and Evaluation	-	-	0.988	-	-	0.022	-	-	0.076	-	-	0.167	-	-	-	-	-	0.167
Nonrecurring Engineering	-	-	8.424	-	-	0.338	-	-	0.250	-	-	-	-	-	-	-	-	-
Systems Integration and Engineering	-	-	6.840	-	-	0.678	-	-	0.165	-	-	0.660	-	-	-	-	-	0.660
Project Management Admin	-	-	5.559	-	-	0.332	-	-	0.370	-	-	0.348	-	-	-	-	-	0.348
Fielding & Training	-	-	2.560	-	-	0.601	-	-	0.384	-	-	0.150	-	-	-	-	-	0.150
Contract Logistics/ Subject Expert Spt	-	-	14.395	-	-	1.273	-	-	1.952	-	-	1.531	-	-	-	-	-	1.531
Subtotal: Recurring Cost	-	-	*102.951*	-	-	*9.380*	-	-	*8.346*	-	-	*9.739*	-	-	-	-	-	*9.739*
Non Recurring Cost																		

Exhibit P-5, Cost Analysis: PB 2022 Army		Date: May 2021
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 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 Total		
	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)
FY2018 NDAA SEC 825 MDAP Cost Overrun	-	-	0.152	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Non Recurring Cost	-	-	*0.152*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Flyaway Cost	**-**	**-**	***103.103***	**-**	**-**	***9.380***	**-**	**-**	***8.346***	**-**	**-**	***9.739***	**-**	**-**	**-**	**-**	**-**	***9.739***
Gross/Weapon System Cost	**29.448**	**3,501**	**103.096**	**1.876**	**5,000**	**9.382**	**1.795**	**4,650**	**8.346**	**-**	**-**	**9.741**	**-**	**-**	**-**	**-**	**-**	**9.741**

Remarks:
FY22 procurement cost increases Systems Integration and Test and Evaluation cost elements in order to execute Engineering Change Proposals (ECPs) necessary to address component obsolescence in the Classified PRSE system.

Prior Years includes FY 2018 NDAA SEC 825 MDAP Cost Overrun rescission.

Secondary Distribution		FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Army	Quantity	5,000	4,650	-	-	-
	Total Obligation Authority	9.382	8.346	9.741	-	9.741
Total: Secondary Distribution	**Quantity**	**5,000**	**4,650**	**-**	**-**	**-**
	Total Obligation Authority	**9.382**	**8.346**	**9.741**	**-**	**9.741**

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2022 Army		Date: May 2021
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		2019	Various Contractors / Various Locations	C / FP	Aberdeen, MD	Jan 2019	Apr 2019	6,250	0.740	Y		
Personnel Recovery Equipment Items		2020	Various Contractors / Various Locations	Option / FP	Aberdeen, MD / Redstone Arsenal, AL	Jan 2020	Apr 2020	1,707	0.936	Y		
Personnel Recovery Equipment Items		2021	Various Contractors / Various Locations	Option / FP	Aberdeen, MD / Redstone Arsenal, AL	Jan 2021	Apr 2021	2,646	0.875	Y		
Personnel Recovery Equipment Items		2022	Various Contractors / Various Locations	Option / FP	Aberden, MD/ Redstone Arsenal, AL	Jan 2022	Apr 2022	3,231	0.831	Y		
Secure Personal Locator Beacons	✓	2021	Orolia USA, Inc. / Rochester, NY	C / IDIQ	Aberdeen, MD	Dec 2020	May 2021	3,287	0.852	N		
Secure Personal Locator Beacons		2022	Orolia USA, Inc. / Rochester, NY	C / IDIQ	Aberdeen, MD	Mar 2022	Sep 2022	5,000	0.838	N		

Exhibit P-40, Budget Line Item Justification: PB 2022 Army	Date: May 2021
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: 0604818A

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026	To Complete	Total
Procurement Quantity *(Units in Each)*	5,431	5,808	3,913	6,115	-	6,115	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	541.236	122.400	137.481	150.244	-	150.244	-	-	-	-	-	-
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	541.236	122.400	137.481	150.244	-	150.244	-	-	-	-	-	-
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**541.236**	**122.400**	**137.481**	**150.244**	**-**	**150.244**	**-**	**-**	**-**	**-**	**-**	**-**
(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)*	99.657	21.074	35.134	24.570	-	24.570	-	-	-	-	-	-

Description:

The Ground Soldier Systems funding line known as Nett Warrior (NW), supports the Army's Network Modernization Strategy Line of Effort (LOE) #1, Unified Network. FY2022 base procurement funding procures NW commercial End User Devices and supporting equipment to provide the dismounted leader integrated mission command and situational awareness during combat operations. The NW system provides operators real-time information on friendly positions, information about enemy activity and movement, navigational data and map imagery, and other mission related graphics. Nett Warrior applies feedback from conventional and Special Operations units to procure and implement SECRET as well as Secure but Unclassified (SBU) networking equipment for Integrated Tactical Network Brigades to enable faster, more flexible Mission Command data exchanges with Joint and Coalition forces while maintaining the existing interoperability with the Mounted and Command Post Computing Environment. NW uses Commercial-Off-The-Shelf (COTS) and Non-Developmental (NDI) communications equipment to create a robust and flexible SBU Integrated Tactical Network that enables faster and more accurate decision making during combat operations at the tactical level. NW also procures supporting power systems to reduce power requirements in the expeditionary environment. NW provides the dismounted common computational platform for the Mobile Handheld Computing Environment and includes integration and interface of products on Soldiers.

The FY21 Army decision on the ITN equipment set and BOI for CS21 reduced the FY21 procurement quantity to 3,913 systems to field 5 BCTs in FY22 along with the initial buy of tech refresh components to support modernization. In FY22, 6,115 systems are being procured to field 6 BCTs in FY23 with no planned tech refresh. These quantities are scheduled to be fielded to COMPO 1 units in accordance with the Network CFT fielding strategy. In FY23, the change in Weapon System Unit Cost is due to the mix of BCT types increasing the number of vehicle kits compared to FY22. In FY24, a SF NG Group is procured (non-ITN unit) and the total number of systems increases, given there is no ITN support equipment associated with SF NG, the overall weapon system unit cost decreases compared to FY23. In FY25, the weapon system unit cost change compared to FY24 is due to tech refresh of equipment fielded in FY20. In FY26, the change in weapons system unit cost is due to the mix of BCTs and increase in tech refresh of equipment fielded in FY21.

Secondary Distribution		FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026
Army	Quantity	3,808	3,913	6,115	-	6,115	-	-	-	-
	Total Obligation Authority	116.265	137.481	150.244	-	150.244	-	-	-	-
ANG	Quantity	2,000	-	-	-	-	-	-	-	-
	Total Obligation Authority	6.135	-	-	-	-	-	-	-	-
Total:	**Quantity**	**5,808**	**3,913**	**6,115**	**-**	**6,115**	**-**	**-**	**-**	**-**

Exhibit P-40, Budget Line Item Justification: PB 2022 Army			Date: May 2021
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:** 0604818A	
Line Item MDAP/MAIS Code: N/A			

Secondary Distribution		FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026
Secondary Distribution	Total Obligation Authority	122.400	137.481	150.244	-	150.244	-	-	-	-

Exhibit P-40, Budget Line Item Justification: PB 2022 Army		Date: May 2021
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:** 0604818A
Line Item MDAP/MAIS Code: N/A		

Exhibits Schedule					Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 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			5,431 / 541.236	5,808 / 122.400	3,913 / 137.481	6,115 / 150.244	- / -	6,115 / 150.244
P-40	**Total Gross/Weapon System Cost**				**5,431 / 541.236**	**5,808 / 122.400**	**3,913 / 137.481**	**6,115 / 150.244**	**- / -**	**6,115 / 150.244**

*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:

FY2022 base procurement funding in the amount of $150.244M procures 6 BCTs of NW Soldier-worn hardware, NW support equipment, NW vehicle integration kits and Integrated Tactical Network (ITN) Secure But Unclassified (SBU) network communications equipment, New Equipment Training (NET) and support services for fielding to 5 Brigade Combat Teams in FY2022. Provides support services to Special Operations, Ranger and Army conventional units. NW-equipped units directly enhance the Army's combat overmatch capability in two Army mission essential tasks: 1) enhances small unit combat fighting capabilities by providing improved situational awareness and mission command to dismounted combat leaders through an integrated smart device and supporting equipment and 2) enables commanders to combine elements of combat power (mission command, movement and maneuver, leadership, intelligence, fires, information, sustainment and protection) to engage the enemy and swiftly end tactical engagements and reduce possible fratricide. NW brings the dismounted tactical combat leaders into the Army's ITN through the SBU network systems and feeds tactically relevant data into the higher classified Army and Joint Coalition networks. On-going evaluations of the ITN will validate effectiveness and scalability for I/S/A BCTs. When major performance improvements in commercial smartphones enable either significant improvements in NW capabilities or reduction in Size, Weight and Power (SWAP), the program will initiate procurement-funded technology refreshment in accordance with AR 70-1 and DoD FMR.

The PM, due to the commercial nature of the Nett Warrior system hardware (e.g. smart phones, smart phone cases, screen protectors, memory cards and other associated accessories) and to address diminishing manufacturing (obsolescence parts), on an as needed basis will consolidate the purchase of NW commercial-based items across multiple years to execute a buyout of devices / components for up to two years beyond FY22 as needed.

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

Exhibit P-5, Cost Analysis: PB 2022 Army		Date: May 2021
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 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Procurement Quantity *(Units in Each)*	5,431	5,808	3,913	6,115	-	6,115
Gross/Weapon System Cost *($ in Millions)*	541.236	122.400	137.481	150.244	-	150.244
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	541.236	122.400	137.481	150.244	-	150.244
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**541.236**	**122.400**	**137.481**	**150.244**	**-**	**150.244**
(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)*	99.657	21.074	35.134	24.570	-	24.570

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

Cost Elements	Prior Years			FY 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 Total		
	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)
Hardware Cost																		
Recurring Cost																		
NW Soldier Worn Hardware (COMPO 1)(†)	2.975	32,277	96.024	3.693	5,808	21.447	3.801	3,913	14.872	3.877	6,115	23.706	-	-	-	3.877	6,115	23.706
Vehicle Integration Kits (COMPO 1)	-	-	168.284	-	-	1.871	-	-	4.254	-	-	5.151	-	-	-	-	-	5.151
Network Support Equipment (COMPO 1)	-	-	134.328	-	-	6.242	-	-	7.749	-	-	15.413	-	-	-	-	-	15.413
Battery and Recharging (COMPO 1)	-	-	47.942	-	-	48.759	-	-	38.335	-	-	50.052	-	-	-	-	-	50.052
Voice Data Gateway (COMPO 1)	-	-	2.006	-	-	2.746	-	-	2.492	-	-	3.696	-	-	-	-	-	3.696
Echelon TOC Boxes (COMPO 1)	-	-	30.359	-	-	11.477	-	-	9.784	-	-	17.829	-	-	-	-	-	17.829
Network Extenders (COMPO 1)	-	-	5.139	-	-	5.789	-	-	5.335	-	-	8.779	-	-	-	-	-	8.779
System Fielding, Initial Spares and Support (COMPO 1)	-	-	48.422	-	-	24.069	-	-	54.660	-	-	25.618	-	-	-	-	-	25.618
NW Soldier Worn Hardware (COMPO 2)	1.852	223	0.413	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Vehicle Integration Kits (COMPO 2)	-	-	1.712	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Exhibit P-5, Cost Analysis: PB 2022 Army		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 25	P-1 Line Item Number / Title: 8825R80501 / Ground Soldier System	Item Number / Title [DODIC]: R80501 / Ground Soldier System
ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:	

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

Cost Elements	Prior Years			FY 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 Total		
	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)
Network Support Equipment (COMPO 2)	-	-	1.272	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Battery and Recharging (COMPO 2)	-	-	1.557	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Voice Data Gateway (COMPO 2)	-	-	0.129	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Echelon TOC Boxes (COMPO 2)	-	-	1.512	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
System Fielding, Initial Spares and Support (COMPO 2)	-	-	2.137	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Recurring Cost	-	-	*541.236*	-	-	*122.400*	-	-	*137.481*	-	-	*150.244*	-	-	-	-	-	*150.244*
Subtotal: Hardware Cost	**-**	**-**	***541.236***	**-**	**-**	***122.400***	**-**	**-**	***137.481***	**-**	**-**	***150.244***	**-**	**-**	**-**	**-**	**-**	***150.244***
Gross/Weapon System Cost	**99.657**	**5,431**	**541.236**	**21.074**	**5,808**	**122.400**	**35.134**	**3,913**	**137.481**	**24.570**	**6,115**	**150.244**	**-**	**-**	**-**	**24.570**	**6,115**	**150.244**

Remarks:

FY22 quantities support procuring 6 BCTs for fielding to COMPO 1 units in accordance with the Network CFT fielding strategy.

FY22 Gross Weapon System Cost changes in FY22 due to no planned Tech Refresh occurring that FY.

The change in FY22 NW Soldier worn hardware cost element unit cost compared to FY21 is due to inflation.

The change in FY22 cost elements NW Soldier worn hardware, Network support equipment, battery & recharging, Voice Data Gateway, Echelon TOC Boxes & Network Extenders total costs compared to FY21 are due to higher buy quantities to support 6 BCTs.

The change in FY22 cost element Vehicle Integration Kit total costs compared to FY21 are due to higher buy quantities to support 6 BCTs and integration w/ additional vehicles (1ABCT & 2 SBCTs).

The change in FY22 cost element System Fielding, Initial Spares and Support costs compared to FY21 is due to no Tech refresh equipment procurement.

Secondary Distribution		FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Army	Quantity	3,808	3,913	6,115	-	6,115
	Total Obligation Authority	116.265	137.481	150.244	-	150.244
ANG	Quantity	2,000	-	-	-	-
	Total Obligation Authority	6.135	-	-	-	-
Total:	**Quantity**	**5,808**	**3,913**	**6,115**	**-**	**6,115**

Exhibit P-5, Cost Analysis: PB 2022 Army		Date: May 2021
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 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Secondary Distribution	Total Obligation Authority	122.400	137.481	150.244	-	150.244

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2022 Army		Date: May 2021
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 (COMPO 1)		2019	TBD / APG, MD	C / FFP	APG-MD	Mar 2019	Aug 2019	4,126	2.013	N		
NW Soldier Worn Hardware (COMPO 1)		2020	TBD / APG, MD	C / FFP	APG-MD	Mar 2020	Aug 2020	5,808	3.693	N		
NW Soldier Worn Hardware (COMPO 1)		2021	TBD / APG, MD	C / FFP	APG-MD	Mar 2021	Aug 2021	3,913	3.801	N		
NW Soldier Worn Hardware (COMPO 1)		2022	TBD / APG, MD	C / FFP	APG-MD	Mar 2022	Aug 2022	6,115	3.877	N		

Remarks:
The NW program focuses on the integration and evaluation of commercial off the shelf (COTS) smart devices for the MC/SA system. P21 form is not provided, as program procures commercial off the shelf (COTS) products.

Exhibit P-40, Budget Line Item Justification: PB 2022 Army	Date: May 2021
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 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026	To Complete	Total
Procurement Quantity *(Units in Each)*	19,971	9,666	9,574	1,921	-	1,921	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	37.200	29.364	34.297	17.815	-	17.815	-	-	-	-	-	-
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	37.200	29.364	34.297	17.815	-	17.815	-	-	-	-	-	-
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**37.200**	**29.364**	**34.297**	**17.815**	**-**	**17.815**	**-**	**-**	**-**	**-**	**-**	**-**
(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)*	1.863	3.038	3.582	9.274	-	9.274	-	-	-	-	-	-

Description:

The Mobile Soldier Power funding line procures improved renewable power systems to enable dismounted Soldiers to execute their missions with fewer battery resupplies, thus reducing the logistical burden associated with moving fuel, generators and batteries. These capabilities combined allow the dismounted Soldier to operate independently for longer missions without being tethered to a large generator, vehicle, or supply train in austere operating environments. The funding line covers ISPDS-C, UBC family of chargers, and Platoon Power Generators.

The Integrated Soldier Power and Data System-Core (ISPDS-C) funding line procures the power and data hub, Conformal Wearable Battery (CWB), and Squad Power Manager (SPM) to fill the power and energy gaps of the Soldier. The use of mission essential Soldier portable power consuming systems is increasing across the battlefield. As the battlefield demand for electronic devices and situation awareness tools such as Nett Warrior, IVAS, GPS systems, weapon sensors, and radios increase, the requirement to provide expeditionary power is a critical enabler to mission accomplishment. 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). In FY23 and out the ISDPS-C funding line is only covering initial provisioning spares for CWB, Power & Data Hub and SPM full system requirement and initial provisioning of spares.

The Universal Battery Charger (UBC) funding line fills the power and energy gap created by the increase in mission essential, Soldier portable power consumers, by providing charging and scavenging solutions capable of providing power to handheld communication devices and a suite of military batteries. The UBC charging solution is procured in two form factors suited for mounted and dismounted operations at the company level and below. The mounted UBC is integrated with combat vehicle platforms and the UBC-L supports the dismounted squad. UBC is 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). MS C FRP occurred August 2017.

The Platoon Power Generation (PPG) funding line provides small units with no less than 900 Watts of portable power to sustain Modified Table of Organizational Equipment (MTOE) unit power demands in support of 48 to 72 hour missions using a common logistical fuel (JP-8). PPG is used in conjunction with ISPDS-C and UBC products to charge batteries and power various types of Army communications and electronics devices. PPG provides sufficient power to recharge and power all Platoon equipment (i.e. batteries, communicators and electronics) and fulfill residual power gaps at the Squad and Soldier level. PPG will provide power to all Brigade Combat Teams (Stryker, Armor and Infantry), Rangers and Special Forces in austere environments. PPG reduces dependency on disposable batteries and the need for operational energy resupply for long duration missions. This effort is consistent with Capabilities Development Document for Small Unit Power (SUP) Increment 1 (September 2013).

Exhibit P-40, Budget Line Item Justification: PB 2022 Army		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 25: Combat Service Support Equipment	**P-1 Line Item Number / Title:** 8827R80800 / Mobile Soldier Power	
ID Code (A=Service Ready, B=Not Service Ready):	**Program Elements for Code B Items:** N/A	**Other Related Program Elements:** N/A
Line Item MDAP/MAIS Code: N/A		

Secondary Distribution		FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026
Army	Quantity	7,270	9,574	1,921	-	1,921	-	-	-	-
	Total Obligation Authority	23.848	34.297	17.815	-	17.815	-	-	-	-
ANG	Quantity	2,396	-	-	-	-	-	-	-	-
	Total Obligation Authority	5.516	-	-	-	-	-	-	-	-
Total: Secondary Distribution	**Quantity**	**9,666**	**9,574**	**1,921**	**-**	**1,921**	**-**	**-**	**-**	**-**
	Total Obligation Authority	**29.364**	**34.297**	**17.815**	**-**	**17.815**	**-**	**-**	**-**	**-**

Exhibit P-40, Budget Line Item Justification: PB 2022 Army	Date: May 2021
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 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/ MAIS Code	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)
P-5	R07091 / Platoon Power Generator	P-5a			- / -	- / 1.120	408 / 6.413	304 / 5.625	- / -	304 / 5.625
P-5	R08090 / Integrated Soldier Power Data System - Core	P-5a			18,222 / 26.858	7,843 / 20.379	7,986 / 17.818	620 / 5.947	- / -	620 / 5.947
P-5	R09103 / Universal Battery Charger	P-5a			1,749 / 10.342	1,823 / 7.865	1,180 / 10.066	997 / 6.243	- / -	997 / 6.243
P-40	**Total Gross/Weapon System Cost**				**19,971 / 37.200**	**9,666 / 29.364**	**9,574 / 34.297**	**1,921 / 17.815**	**- / -**	**1,921 / 17.815**

*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:
FY2022 base procurement dollars in the amount of $17.815 million procures and fields integrated power and data managing products, battery chargers, Conformable Wearable Batteries, Small form factor generators and associated equipment in support of N-CFT's Integrated Tactical Network fielding plan for BCT's (A/S/I), SFABs, Ranger, Special Forces units and base requirements.

Soldiers face an ever-growing power demand that requires a comprehensive power generation, storage, and charging architecture. The gap between current power available and future power demand widens with the introduction of additional integrated digital electronic capabilities such as Nett Warrior (NW), Integrated Visual Augmentation System (IVAS), Leader Radios, Next Generation Squad Weapon (NGSW) and Assured Position Navigation and Timing (A-PNT). Additional batteries add weight increasing the Soldiers combat load and consume space during resupply operations. Mobile Soldier Power products meet the demand for increased power, while taking advantage of emerging COTs and GOTs solutions. These solutions reduce the cognitive and logistical burden on the soldier to facilitate 72 hours of mission duration before resupply. Mobile Soldier Power products meet the demand for charging in bulk or in an expeditionary environment to rapidly and efficiently execute resupply operations, increase mission duration, reduce logistical burden, and decrease risk to the Soldier.

In response to changing requirements, FY20, FY21 and FY22 procurement funding for the PPG will be utilized to procure UBCs in support of higher Army modernization priority.
R07091 (Platoon Power Generation) P40 incorrectly reflects quantities in FY21-22; quantities should all reflect 0.

"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 2022 Army		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 25	**P-1 Line Item Number / Title:** 8827R80800 / Mobile Soldier Power	**Item Number / Title [DODIC]:** R07091 / Platoon Power Generator
ID Code (A=Service Ready, B=Not Service Ready) :	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Procurement Quantity *(Units in Each)*	-	-	408	304	-	304
Gross/Weapon System Cost *($ in Millions)*	-	1.120	6.413	5.625	-	5.625
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	-	1.120	6.413	5.625	-	5.625
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**-**	**1.120**	**6.413**	**5.625**	**-**	**5.625**
(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)*	-	-	15.718	18.503	-	18.503

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

Cost Elements	Prior Years			FY 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 Total		
	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)
Flyaway Cost																		
Recurring Cost																		
PPG(†)	-	-	-	-	-	-	9.390	408	3.831	-	-	-	-	-	-	-	-	-
Universal Battery Charges	-	-	-	-	-	-	-	-	-	-	-	5.625	-	-	-	-	-	5.625
1. Engineering Support	-	-	-	-	-	-	-	-	0.388	-	-	-	-	-	-	-	-	-
2. Endgineering Change Orders	-	-	-	-	-	-	-	-	0.198	-	-	-	-	-	-	-	-	-
3. Testing	-	-	-	-	-	-	-	-	0.294	-	-	-	-	-	-	-	-	-
4. System Fielding Support	-	-	-	-	-	-	-	-	0.812	-	-	-	-	-	-	-	-	-
System Assessments	-	-	-	-	-	-	-	-	0.103	-	-	-	-	-	-	-	-	-
6. Logistics Support	-	-	-	-	-	-	-	-	0.361	-	-	-	-	-	-	-	-	-
7. Data	-	-	-	-	-	-	-	-	0.047	-	-	-	-	-	-	-	-	-
8. PM Management Support	-	-	-	-	-	1.120	-	-	0.379	-	-	-	-	-	-	-	-	-
Subtotal: Recurring Cost	-	-	-	-	-	*1.120*	-	-	*6.413*	-	-	*5.625*	-	-	-	-	-	*5.625*
Subtotal: Flyaway Cost	**-**	**-**	**-**	**-**	**-**	***1.120***	**-**	**-**	***6.413***	**-**	**-**	***5.625***	**-**	**-**	**-**	**-**	**-**	***5.625***
Gross/Weapon System Cost	**-**	**-**	**-**	**-**	**-**	**1.120**	**15.718**	**408**	**6.413**	**18.503**	**304**	**5.625**	**-**	**-**	**-**	**18.503**	**304**	**5.625**

Remarks:
Note the Universal Battery Chargers are supporting additional higher modernization priorities and not a new start effort with prior procurements in R09103.

Exhibit P-5, Cost Analysis: PB 2022 Army		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 25	**P-1 Line Item Number / Title:** 8827R80800 / Mobile Soldier Power	**Item Number / Title [DODIC]:** R07091 / Platoon Power Generator
ID Code (A=Service Ready, B=Not Service Ready) :	**MDAP/MAIS Code:**	

P40 incorrectly reflects quantities in FY21-22; quantity should reflect 0.

Secondary Distribution		FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Army	Quantity	-	408	304	-	304
	Total Obligation Authority	1.120	6.413	5.625	-	5.625
Total: Secondary Distribution	**Quantity**	**-**	**408**	**304**	**-**	**304**
	Total Obligation Authority	**1.120**	**6.413**	**5.625**	**-**	**5.625**

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2022 Army		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 25	P-1 Line Item Number / Title: 8827R80800 / Mobile Soldier Power	Item Number / Title [DODIC]: R07091 / Platoon Power Generator

Cost Elements	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
PPG		2021	TBD / TBD	C / TBD	Picatinny	Mar 2021	Sep 2021	408	9.390	N		
PPG		2022	TBD / TBD	C / FFP	ACC-APG	Mar 2022	Jul 2022	0	0.000	N		

Remarks:
In response to changing requirements, FY20, FY21 and FY22 procurement funding for the PPG will be utilized to procure UBCs in support of higher Army modernization priority.

Exhibit P-5, Cost Analysis: PB 2022 Army		Date: May 2021
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 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Procurement Quantity *(Units in Each)*	18,222	7,843	7,986	620	-	620
Gross/Weapon System Cost *($ in Millions)*	26.858	20.379	17.818	5.947	-	5.947
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	26.858	20.379	17.818	5.947	-	5.947
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**26.858**	**20.379**	**17.818**	**5.947**	**-**	**5.947**
(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)*	1.474	2.598	2.231	9.592	-	9.592

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

Cost Elements	Prior Years			FY 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 Total		
	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	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(†)	0.814	27,307	22.233	1.327	7,843	10.408	1.092	7,986	8.724	7.994	620	4.956	-	-	-	7.994	620	4.956
System Fielding and Support	-	-	1.327	-	-	4.748	-	-	9.094	-	-	0.991	-	-	-	-	-	0.991
Sys Eng/Program Management	-	-	3.303	-	-	2.339	-	-	-	-	-	-	-	-	-	-	-	-
Stryker BCT CWB, Power, Data Hubs and SPM	-	-	-	-	-	2.884	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Recurring Cost	-	-	*26.863*	-	-	*20.379*	-	-	*17.818*	-	-	*5.947*	-	-	-	-	-	*5.947*
Subtotal: Hardware Cost	**-**	**-**	***26.863***	**-**	**-**	***20.379***	**-**	**-**	***17.818***	**-**	**-**	***5.947***	**-**	**-**	**-**	**-**	**-**	***5.947***
Gross/Weapon System Cost	**1.474**	**18,222**	**26.858**	**2.598**	**7,843**	**20.379**	**2.231**	**7,986**	**17.818**	**9.592**	**620**	**5.947**	**-**	**-**	**-**	**9.592**	**620**	**5.947**

Remarks:

The FY22 Weapon system unit price shows significant increase due to CWB and Hubs only being procured as initial provision spares and as such are not part of the FY22 quantity (includes only SPMs). FY21 quantity included the CWB and SPM end items as part of total quantity number. In FY22, supported program of records, such as Nett Warrior / IVAS are procuring the needed Hub and CWB batteries to support their particular program of record.

FY22 procurement quantities align with the Network Cross Functional Team (N-CFT) fielding requirements in FY23.

The FY22 system fielding & support element increases from FY21 to FY22 due to increase in number of brigades being procured in FY22 and this element also is where the initial provision spares are captured.

Exhibit P-5, Cost Analysis: PB 2022 Army		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 25	**P-1 Line Item Number / Title:** 8827R80800 / Mobile Soldier Power	**Item Number / Title [DODIC]:** R08090 / Integrated Soldier Power Data System - Core
ID Code (A=Service Ready, B=Not Service Ready) :	**MDAP/MAIS Code:**	

Secondary Distribution		FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Army	Quantity	5,529	7,986	620	-	620
	Total Obligation Authority	15.217	17.818	5.947	-	5.947
ANG	Quantity	2,314	-	-	-	-
	Total Obligation Authority	5.162	-	-	-	-
Total: Secondary Distribution	**Quantity**	**7,843**	**7,986**	**620**	**-**	**620**
	Total Obligation Authority	**20.379**	**17.818**	**5.947**	**-**	**5.947**

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2022 Army		**Date:** May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 25	**P-1 Line Item Number / Title:** 8827R80800 / Mobile Soldier Power	**Item Number / Title [DODIC]:** R08090 / Integrated Soldier Power Data System - Core

Cost Elements	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		2022	Revise / Southborough, MA	MIPR	DLA/TLS	Dec 2021	Jun 2022	620	7.994	N		

Remarks:
P-21 not required since Mobile Soldier Power is not an ACAT I program.

The FY22 quantities of Hub and CWB are for initial provisioning spares and source is TBD due to on-going source selections for Hub and CWB.

The FY22 SPM quantity includes end item quantity of 620.

Exhibit P-5, Cost Analysis: PB 2022 Army		Date: May 2021
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 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Procurement Quantity *(Units in Each)*	1,749	1,823	1,180	997	-	997
Gross/Weapon System Cost *($ in Millions)*	10.342	7.865	10.066	6.243	-	6.243
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	10.342	7.865	10.066	6.243	-	6.243
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**10.342**	**7.865**	**10.066**	**6.243**	**-**	**6.243**
(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)*	5.913	4.314	8.531	6.262	-	6.262

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

Cost Elements	Prior Years			FY 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 Total		
	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	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(†)	1.119	2,033	2.275	2.906	1,823	5.297	2.653	1,180	3.131	2.690	997	2.682	-	-	-	2.690	997	2.682
UBC Fielding and Support	-	-	1.648	-	-	0.400	-	-	0.462	-	-	0.334	-	-	-	-	-	0.334
Subtotal: Recurring Cost	-	-	*3.923*	-	-	*5.697*	-	-	*3.593*	-	-	*3.016*	-	-	-	-	-	*3.016*
Non Recurring Cost																		
UBC Vehicle Integration	-	-	3.930	-	-	1.318	-	-	3.658	-	-	2.227	-	-	-	-	-	2.227
System Engineering/ Program Management	-	-	2.489	-	-	0.850	-	-	2.815	-	-	1.000	-	-	-	-	-	1.000
Subtotal: Non Recurring Cost	-	-	*6.419*	-	-	*2.168*	-	-	*6.473*	-	-	*3.227*	-	-	-	-	-	*3.227*
Subtotal: Hardware Cost	**-**	**-**	***10.342***	**-**	**-**	***7.865***	**-**	**-**	***10.066***	**-**	**-**	***6.243***	**-**	**-**	**-**	**-**	**-**	***6.243***
Gross/Weapon System Cost	**5.913**	**1,749**	**10.342**	**4.314**	**1,823**	**7.865**	**8.531**	**1,180**	**10.066**	**6.262**	**997**	**6.243**	**-**	**-**	**-**	**6.262**	**997**	**6.243**

Remarks:

FY22 procurement quantities align with the Network Cross Functional Team (N-CFT) fielding requirements in FY23.

FY22 unit cost decrease due to the majority (952 units) being procured for vehicles. The mounted UBC is less expensive, in FY21 we procured more dismounted UBCs.

FY22 weapons system cost decrease due to larger percentage of vehicle based UBC versus dismounted UBCs compared to FY21.

Exhibit P-5, Cost Analysis: PB 2022 Army		Date: May 2021
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 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Army	Quantity	1,741	1,180	997	-	997
	Total Obligation Authority	7.511	10.066	6.243	-	6.243
ANG	Quantity	82	-	-	-	-
	Total Obligation Authority	0.354	-	-	-	-
Total: Secondary Distribution	**Quantity**	**1,823**	**1,180**	**997**	**-**	**997**
	Total Obligation Authority	**7.865**	**10.066**	**6.243**	**-**	**6.243**

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2022 Army		**Date:** May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 25	**P-1 Line Item Number / Title:** 8827R80800 / Mobile Soldier Power	**Item Number / Title [DODIC]:** R09103 / Universal Battery Charger

Cost Elements	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
Universal Battery Charger (UBC) Hardware		2020	Thales Defense / Arlington, VA	MIPR	ACC-APG	Aug 2020	Aug 2020	1,823	2.906	N		
Universal Battery Charger (UBC) Hardware		2022	TBD / TBD	MIPR	TBD	Feb 2022	Aug 2022	997	2.690	N		

Remarks:
P-21 not required since Mobile Soldier Power is not an ACAT I program.

Exhibit P-40, Budget Line Item Justification: PB 2022 Army	Date: May 2021
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 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026	To Complete	Total
Procurement Quantity *(Units in Each)*	12	12	16	6	-	6	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	1,187.811	64.400	62.400	28.860	-	28.860	-	-	-	-	-	-
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	1,187.811	64.400	62.400	28.860	-	28.860	-	-	-	-	-	-
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**1,187.811**	**64.400**	**62.400**	**28.860**	**-**	**28.860**	**-**	**-**	**-**	**-**	**-**	**-**
(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)*	98,984.250	5,366.667	3,900.000	4,810.000	-	4,810.000	-	-	-	-	-	-

Description:

Force Provider is a fully integrated and scalable life support capability supporting critical Operational Plan requirements of the Army Service Component Commands (ASCC) from five Army Prepositioned stock Locations. Provides global force projection for near-peer engagement within 24-48 hours. Highly mobile, rapidly deployable modular system that is resource efficient and easily sustainable. Currently deployed in 3 theaters of operation. Supports 150 personnel deployed in austere and remote expeditionary environments with: Billeting; Food Service; Hygiene facilities; Power generation and distribution; & Petroleum and water storage. 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 (with objective of -60). Missions for Force Provider are: Base camps for enforcement missions, peace keeping, theater reception/ redeployment, intermediate staging base operations, humanitarian aid and disaster relief. 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 Operational 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 355 each 150-Soldier modules and 27 each 50/75 Soldier modules. Thirty One of the 150-Soldier Modules will be equipped with energy-efficient Rigid-Walled Shelters that will significantly reduce operational energy demands in lieu of the standard soft-walled shelters.

Secondary Distribution		FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026
Army	Quantity	12	16	6	-	6	-	-	-	-
	Total Obligation Authority	64.400	62.400	28.860	-	28.860	-	-	-	-
Total: Secondary Distribution	**Quantity**	**12**	**16**	**6**	**-**	**6**	**-**	**-**	**-**	**-**
	Total Obligation Authority	**64.400**	**62.400**	**28.860**	**-**	**28.860**	**-**	**-**	**-**	**-**

Exhibit P-40, Budget Line Item Justification: PB 2022 Army		Date: May 2021
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 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/ MAIS Code	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*
P-5	M80200 / Force Provider	P-5a, P-21			12 / 1,187.811	12 / 64.400	16 / 62.400	6 / 28.860	- / -	6 / 28.860
P-40	**Total Gross/Weapon System Cost**				**12 / 1,187.811**	**12 / 64.400**	**16 / 62.400**	**6 / 28.860**	**- / -**	**6 / 28.860**

*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:

FY2022 base procurement dollars of $28.860 million supports the production of 6 Force Provider 150-Soldier equivalent systems, 2 Power Generation and Distribution Kits, and 2 Expeditionary TRICON Kits to replace battle losses in support of Operation Freedom Sentinel (OFS) and Operation Inherent Resolve (OIR). These replacement systems will employ key Resource and Operational Energy capabilities that will reduce fuel and water dependency and extend endurance. The Power Generation and Distribution kits and TRICON kits are subcomponents in Force Provider.

FY2022 funds are split in the amount of $14.430 million will support the Direct War Cost for Operation Sentinel and $14.430 million will support the Direct War Cost for Operation Inherent Resolve.

Funding supports the organic industrial base with work to be performed Letterkenny Army Depot including the purchase of long lead items and subsequent production

Exhibit P-5, Cost Analysis: PB 2022 Army		Date: May 2021
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 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Procurement Quantity *(Units in Each)*	12	12	16	6	-	6
Gross/Weapon System Cost *($ in Millions)*	1,187.811	64.400	62.400	28.860	-	28.860
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	1,187.811	64.400	62.400	28.860	-	28.860
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**1,187.811**	**64.400**	**62.400**	**28.860**	**-**	**28.860**
(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)*	98,984.250	5,366.667	3,900.000	4,810.000	-	4,810.000

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

Cost Elements	Prior Years			FY 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 Total		
	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	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(†)	12,373.182	66	816.630	3,839.000	12	46.068	3,514.000	12	42.168	3,520.000	6	21.120	-	-	-	3,520.000	6	21.120
Hardware Power Generation and Distribution Kit	4,833.606	33	159.509	400.000	6	2.400	413.000	6	2.478	415.000	2	0.830	-	-	-	415.000	2	0.830
Hardware Expeditionary TRICON Set	2,780.667	66	183.524	630.000	6	3.780	658.000	6	3.948	662.000	2	1.324	-	-	-	662.000	2	1.324
Hardware ESPS protection kits	-	-	-	1,256.000	6	7.536	1,244.000	4	4.976	-	-	-	-	-	-	-	-	-
System Engineering/ Program Management	-	-	3.715	-	-	1.098	-	-	2.310	-	-	1.400	-	-	-	-	-	1.400
Logistics	-	-	3.372	-	-	0.175	-	-	1.200	-	-	1.100	-	-	-	-	-	1.100
Data	-	-	4.400	-	-	0.175	-	-	0.200	-	-	0.104	-	-	-	-	-	0.104
System Techical Support	-	-	6.628	-	-	2.098	-	-	3.880	-	-	2.650	-	-	-	-	-	2.650
Testing	-	-	0.445	-	-	-	-	-	0.595	-	-	-	-	-	-	-	-	-
Fielding	-	-	6.562	-	-	0.730	-	-	0.300	-	-	0.153	-	-	-	-	-	0.153
Hardware Spare Parts	-	-	3.026	-	-	0.340	-	-	0.345	-	-	0.179	-	-	-	-	-	0.179
Subtotal: Recurring Cost	-	-	*1,187.811*	-	-	*64.400*	-	-	*62.400*	-	-	*28.860*	-	-	-	-	-	*28.860*
Subtotal: Flyaway Cost	**-**	**-**	***1,187.811***	**-**	**-**	***64.400***	**-**	**-**	***62.400***	**-**	**-**	***28.860***	**-**	**-**	**-**	**-**	**-**	***28.860***
Gross/Weapon System Cost	**98,984.250**	**12**	**1,187.811**	**5,366.667**	**12**	**64.400**	**3,900.000**	**16**	**62.400**	**4,810.000**	**6**	**28.860**	**-**	**-**	**-**	**4,810.000**	**6**	**28.860**

Exhibit P-5, Cost Analysis: PB 2022 Army		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 25	**P-1 Line Item Number / Title:** 8860M80200 / Force Provider	**Item Number / Title [DODIC]:** M80200 / Force Provider
ID Code (A=Service Ready, B=Not Service Ready) :	**MDAP/MAIS Code:**	

Remarks:
In FY21, the Hardware Power Generation and Distribution Kit unit price increased due to procuring an advanced generator (Digital Control System) with associated Microgrid System. FY20 Unit Cost is incorrect and should reflect $400K.

Hardware Expeditionary TRICON Set price has a production increase due to awarding a new contract in FY 20. The increased unit price incorporates inflation; plus procuring Containerized Food Sanitation Center (CFSC) and cold weather and prime power connection kits. FY20 Unit Cost is incorrect and should reflect $630K.

FY20 total quantity incorrectly reflects the total of 12 quantities. The total quantity should read 18 which is 12 Force Provider modules and 6 ESPS kits.

FY21 total quantity reflects 12 Force Provider modules and 4 ESPS Kits.

FY20 and FY21 received congressional add base funding for the following:
FY20 funds in the amount of $8M were provided for 6 ESPS kits
FY21 funds in the amount of $6M are provided for 4 ESPS kits

FY22 Funds in the amount of $28.860M are provided for a total of 6 Force Provider modules with the following dollar type and quantity breakdown:
$14.430M Base - Direct War Operation Freedom's Sentinel funds are provided for 3 Force Provider modules
$14.430M Base - Direct War Operation Inherent Resolve funds are provided for 3 Force Provider modules

Secondary Distribution		FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Army	Quantity	12	16	6	-	6
	Total Obligation Authority	64.400	62.400	28.860	-	28.860
Total: Secondary Distribution	**Quantity**	**12**	**16**	**6**	**-**	**6**
	Total Obligation Authority	**64.400**	**62.400**	**28.860**	**-**	**28.860**

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2022 Army		Date: May 2021
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(†)	✓	2019	Letterkenny Army Depot / Chambersburg, PA	SS / FFP	Natick, MA	Apr 2019	Jan 2020	7	4,006.000	Y	Jun 2017	Jun 2017
Hardware Force Provider Module(†)	✓	2019	Ready One Industries / El Paso, TX	SS / FFP	Natick, MA	Apr 2019	Jan 2020	5	4,006.000	Y	Jan 2019	Feb 2019
Hardware Force Provider Module(†)	✓	2020	Letterkenny Army Depot / Chambersburg, PA	SS / FFP	Natick, MA	Apr 2020	Jan 2021	8	3,839.000	Y	Jun 2017	Jun 2017
Hardware Force Provider Module(†)	✓	2020	Ready One Industries / El Paso, TX	SS / FFP	Natick, MA	Apr 2020	Jan 2021	4	3,839.000	Y	Jan 2020	Feb 2020
Hardware Force Provider Module(†)	✓	2021	Letterkenny Army Depot / Chambersburg, PA	SS / FFP	Natick, MA	Apr 2021	Jan 2022	8	3,514.000	Y	Jun 2017	Jun 2017
Hardware Force Provider Module(†)	✓	2021	Ready One Industries / El Paso, TX	SS / FFP	Natick, MA	Apr 2021	Jan 2022	4	3,514.000	Y	Jan 2021	Feb 2021
Hardware Force Provider Module(†)		2022	Letterkenny Army Depot / Chambersburg, PA	SS / FFP	Natick, MA	Apr 2022	Jan 2023	4	3,520.000	Y	Jun 2017	Jun 2017
Hardware Force Provider Module(†)		2022	Ready One Industries / El Paso, TX	SS / FFP	Natick, MA	Apr 2022	Jan 2023	2	3,520.000	Y	Jan 2022	Feb 2022

(†) indicates the presence of a P-21

Exhibit P-21, Production Schedule: PB 2022 Army		**Date:** May 2021
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: 54																															
✓	1	2019	ARMY	7	0	7							A -	-	-	-	-	-	-	-	-	3	-	2	-	2					0
✓	2	2019	ARMY	5	0	5							A -	-	-	-	-	-	-	-	-	2	-	2	-	1					0
✓	1	2020	ARMY	8	0	8																			A -	-	-	-	-	-	8
✓	2	2020	ARMY	4	0	4																			A -	-	-	-	-	-	4
✓	1	2021	ARMY	8	0	8																									8
✓	2	2021	ARMY	4	0	4																									4
	1	2022	ARMY	4	0	4																									4
	2	2022	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 2022 Army		**Date:** May 2021
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 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 Force Provider Module																															
Prior Years Deliveries: 54																															
✓	1	2019	ARMY	7	7	0																									0
✓	2	2019	ARMY	5	5	0																									0
✓	1	2020	ARMY	8	0	8	-	-	-	4	-	4																			0
✓	2	2020	ARMY	4	0	4	-	-	-	2	-	2																			0
✓	1	2021	ARMY	8	0	8							A -	-	-	-	-	-	-	-	-	4	-	4							0
✓	2	2021	ARMY	4	0	4							A -	-	-	-	-	-	-	-	-	2	-	2							0
	1	2022	ARMY	4	0	4																			A -	-	-	-	-	-	4
	2	2022	ARMY	2	0	2																			A -	-	-	-	-	-	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 2022 Army		Date: May 2021
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 2023												Fiscal Year 2024												BALANCE
							Calendar Year 2023												Calendar Year 2024												
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2022	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: 54																															
✓	1	2019	ARMY	7	7	0																									0
✓	2	2019	ARMY	5	5	0																									0
✓	1	2020	ARMY	8	8	0																									0
✓	2	2020	ARMY	4	4	0																									0
✓	1	2021	ARMY	8	8	0																									0
✓	2	2021	ARMY	4	4	0																									0
	1	2022	ARMY	4	0	4	-	-	-	2	-	2																			0
	2	2022	ARMY	2	0	2	-	-	-	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 2022 Army		**Date:** May 2021
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 2022	1-8-5 For 2022	MAX For 2022	ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1	ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1
1	Letterkenny Army Depot - Chambersburg, PA	4	12	24	0	6	9	15	0	3	9	12
2	Ready One Industries - El Paso, TX	2	6	12	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 2022 Army	Date: May 2021
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 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026	To Complete	Total
Procurement Quantity *(Units in Each)*	106	80	12	12	-	12	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	247.819	15.973	2.279	2.321	-	2.321	-	-	-	-	-	-
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	247.819	15.973	2.279	2.321	-	2.321	-	-	-	-	-	-
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**247.819**	**15.973**	**2.279**	**2.321**	**-**	**2.321**	**-**	**-**	**-**	**-**	**-**	**-**
(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)*	2,337.915	199.663	189.917	193.417	-	193.417	-	-	-	-	-	-

Description:

The Field Feeding and Refrigeration program provides equipment to conduct tactical food service operations. Field Feeding is a combat multiplier which improves morale and enhances the Soldier's physical and cognitive capabilities. Associated with food service operations are storage, preparation, serving and cleanup. Equipment items include: field kitchens, food sanitation centers, and refrigerated containers. This program supports production of the Multi Temperature Refrigerated Container System (MTRCS), Assault Kitchen (AK), Containerized Kitchen (CK) and Field Feeding Sanitation Center (FSC). This equipment in conjunction with food service personnel and field rations, comprises the Army Field Feeding System (AFFS) which supports the Army standard of a minimum of one hot prepared meal per day in the field. This program provides a critical capability that supports Army transformation and modularity concept while maintaining readiness through fielding and integration of new equipment. It enhances the field Soldier's well being and reduces requirements for related lift demands, combat zone footprint, and logistical support costs. AAO is as the following:

1. AK = 2274
2. MTRCS = 2424
3. CK = 972
4. FSC = 2693

Secondary Distribution		FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026
Army	Quantity	80	12	12	-	12	-	-	-	-
	Total Obligation Authority	15.973	2.279	2.321	-	2.321	-	-	-	-
Total: Secondary Distribution	**Quantity**	**80**	**12**	**12**	**-**	**12**	**-**	**-**	**-**	**-**
	Total Obligation Authority	**15.973**	**2.279**	**2.321**	**-**	**2.321**	**-**	**-**	**-**	**-**

Justification:
FY 2022 base procurement dollars in the amount of $2.321 million supports production of 12 Multi-Temperature Refrigerated Container Systems (MTRCS) to replace losses of deployed assets. These funds are to support the Direct War Cost for Operation Freedom's Sentinel.

Exhibit P-40, Budget Line Item Justification: PB 2022 Army		Date: May 2021
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		

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 2022 Army	Date: May 2021
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 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	696.447	44.662	55.061	40.240	-	40.240	-	-	-	-	-	-
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	696.447	44.662	55.061	40.240	-	40.240	-	-	-	-	-	-
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**696.447**	**44.662**	**55.061**	**40.240**	**-**	**40.240**	**-**	**-**	**-**	**-**	**-**	**-**
(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 Advanced Tactical Parachute System (ATPS) is the Army's parachute system for personnel low-altitude static line Airborne Operations and consists of the T-11 (non-steerable) and the 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 Airborne Operations. The total Army Acquisition Objective (AAO) of 43,708 has been procured and fielding was completed in FY15. The MC-6 consists of the same reserve and harness as the T-11 with the MC-6 main steerable canopy. The total MC-6 AAO of 25,649 has been procured and fielding was completed in FY14.

-Parachutes provided to the field during the initial fielding of the MC-6 and T-11 are reaching the end of their service life and replacement systems are being procured to maintain unit mission readiness. Both the T-11 and MC-6 are Class VII items centrally funded and controlled, and as such, replacement systems are procured and fielded to operational units by the Project Manager through multiple award IDIQ (indefinite delivery indefinite quantity) contracts.

- The RA-1 Parachute System is replacing the legacy MC-4 Ram Air Parachute System with a multi-mission High Altitude Low Opening (HALO) and High Altitude High Opening (HAHO) standoff insertion capability as well as a static line deployed insertion capability. The RA-1 allows personnel to exit at altitudes between 3,500 ft and 35,000 ft Mean Sea Level (MSL) with a total jumper weight of 450 lbs. The total RA-1 AAO of 5,470 began in FY14 and is scheduled through FY21.

-The Parachutist Navigation System (PARANAVSYS) provides a Global Positioning System (GPS) capability for parachutists using the RA-1.The AAO is 1,887 with procurement from FY19-FY20. Fielding is currently ongoing.

-Joint Precision Air Drop System (JPADS) represents the DoD's next generation of cargo aerial delivery. The system provides autonomous guidance of loads dropped from altitudes up to 25,000 feet Mean Sea Level (MSL) at increments of 2,000 (2K) and 10,000 (10K) pounds. JPADS will allow precise delivery of critical supplies to the Warfighter on the ground while allowing aircraft delivering payloads to fly at significantly safer altitudes. This line includes both 2K and 10K procurement. AAO for JPADS 2K systems is 1,445 and the AAO for 10K systems is 467.

Secondary Distribution		FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026
Army	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	42.603	47.813	35.165	-	35.165	-	-	-	-

Exhibit P-40, Budget Line Item Justification: PB 2022 Army		Date: May 2021
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 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026
ANG	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	2.059	6.359	4.294	-	4.294	-	-	-	-
AR	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	-	0.889	0.781	-	0.781	-	-	-	-
Total: Secondary Distribution	**Quantity**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
	Total Obligation Authority	**44.662**	**55.061**	**40.240**	**-**	**40.240**	**-**	**-**	**-**	**-**

Exhibit P-40, Budget Line Item Justification: PB 2022 Army	Date: May 2021
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 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 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				- / 525.595	- / 42.622	- / 53.021	- / 38.159	- / -	- / 38.159
P-5	MA7806 / Precision Airdrop	P-5a			- / 170.852	- / 2.040	- / 2.040	- / 2.081	- / -	- / 2.081
P-40	**Total Gross/Weapon System Cost**				**- / 696.447**	**- / 44.662**	**- / 55.061**	**- / 40.240**	**- / -**	**- / 40.240**

*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:
FY22 Base Procurement dollars in the amount of $38.159 million supports the procurement of MC-6 (1,345), RA-1 (50), T-11 (2,774) and T-11R Pack Trays (10,000).

FY 2022 base procurement dollars in the amount of $2.081 million supports production of 28 Joint Precision Airdrop 2K systems consisting of Modular Autonomous Guidance Unit (MAGU) and harness to replace battle losses for the Direct War Cost for Operation Freedom's Sentinel.

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 2022 Army		Date: May 2021
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 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	525.595	42.622	53.021	38.159	-	38.159
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	525.595	42.622	53.021	38.159	-	38.159
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**525.595**	**42.622**	**53.021**	**38.159**	**-**	**38.159**
(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)*	46.657	4.998	6.656	6.036	-	6.036

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

Cost Elements	Prior Years			FY 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 Total		
	Unit Cost *($ K)*	Qty *(Each)*	Total Cost *($ M)*	Unit Cost *($ K)*	Qty *(Each)*	Total Cost *($ M)*	Unit Cost *($ K)*	Qty *(Each)*	Total Cost *($ M)*	Unit Cost *($ K)*	Qty *(Each)*	Total Cost *($ M)*	Unit Cost *($ K)*	Qty *(Each)*	Total Cost *($ M)*	Unit Cost *($ K)*	Qty *(Each)*	Total Cost *($ M)*
Flyaway Cost																		
Recurring Cost																		
Program Support (PM, Engineering, Logistics)	-	-	19.307	-	-	2.980	-	-	2.500	2,430.000	1	2.430	-	-	-	2,430.000	1	2.430
New Equipment Training	-	-	86.425	-	-	4.573	-	-	3.004	2,501.000	1	2.501	-	-	-	2,501.000	1	2.501
T-11	4.555	51,074	232.646	5.589	2,401	13.418	5.796	4,279	24.801	6.000	2,774	16.644	-	-	-	6.000	2,774	16.644
T-11R Pack Tray	0.200	10,010	2.002	-	-	-	0.500	10,000	5.000	0.823	10,000	8.230	-	-	-	0.823	10,000	8.230
MC-6	4.981	26,535	132.170	5.194	3,272	16.996	4.622	3,184	14.716	5.505	1,345	7.404	-	-	-	5.505	1,345	7.404
RA-1 (ARAPS)	11.195	4,319	48.350	16.460	200	3.292	12.931	232	3.000	19.000	50	0.950	-	-	-	19.000	50	0.950
RA-1 SPARE PARTS	43.942	103	4.526	207.000	1	0.207	-	-	-	-	-	-	-	-	-	-	-	-
PARANAVSYS RTK	12.214	14	0.171	12.168	95	1.156	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Recurring Cost	-	-	*525.597*	-	-	*42.622*	-	-	*53.021*	-	-	*38.159*	-	-	-	-	-	*38.159*
Subtotal: Flyaway Cost	**-**	**-**	***525.597***	**-**	**-**	***42.622***	**-**	**-**	***53.021***	**-**	**-**	***38.159***	**-**	**-**	**-**	**-**	**-**	***38.159***
Gross/Weapon System Cost	**46.657**	**-**	**525.595**	**4.998**	**-**	**42.622**	**6.656**	**-**	**53.021**	**6.036**	**-**	**38.159**	**-**	**-**	**-**	**6.036**	**-**	**38.159**

Remarks:
FY2021 to FY2022 Increase in Unit Cost: Both the T-11 system unit cost and MC-6 system unit cost are determined as an average of two IDIQ contracts awarded in FY19 and FY20, respectively. Unit cost is dependent on step-ladder pricing which increases yearly based on the awarded contracts. The RA-1 system is procured using an IDIQ contract awarded to one contractor. The average RA-1 system cost is determined by established step-ladder pricing for each year in the contract. Prices increase yearly.

Exhibit P-5, Cost Analysis: PB 2022 Army		Date: May 2021
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 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Army	Quantity	-	-	-	-	-
	Total Obligation Authority	40.563	45.773	33.084	-	33.084
ANG	Quantity	-	-	-	-	-
	Total Obligation Authority	2.059	6.359	4.294	-	4.294
AR	Quantity	-	-	-	-	-
	Total Obligation Authority	-	0.889	0.781	-	0.781
Total: Secondary Distribution	**Quantity**	**-**	**-**	**-**	**-**	**-**
	Total Obligation Authority	**42.622**	**53.021**	**38.159**	**-**	**38.159**

Exhibit P-5, Cost Analysis: PB 2022 Army		Date: May 2021
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 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	170.852	2.040	2.040	2.081	-	2.081
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	170.852	2.040	2.040	2.081	-	2.081
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**170.852**	**2.040**	**2.040**	**2.081**	**-**	**2.081**
(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)*	591.183	72.857	72.857	74.321	-	74.321

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

Cost Elements	Prior Years			FY 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 Total		
	Unit Cost *($ K)*	Qty *(Each)*	Total Cost *($ M)*	Unit Cost *($ K)*	Qty *(Each)*	Total Cost *($ M)*	Unit Cost *($ K)*	Qty *(Each)*	Total Cost *($ M)*	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(†)	257.923	298	76.861	34.000	28	0.952	36.000	28	1.008	38.000	28	1.064	-	-	-	38.000	28	1.064
Hardware Spares JPADS 2K	-	-	0.096	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sys Test & Evaluate, Production JPADS 2K	-	-	0.056	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sys Engineer/Program Mgt JPADS 2K	-	-	0.493	-	-	0.470	-	-	0.432	-	-	0.517	-	-	-	-	-	0.517
Fielding/Training JPADS 2K	-	-	0.443	-	-	0.450	-	-	0.300	-	-	0.200	-	-	-	-	-	0.200
Data JPADS 2K	-	-	0.059	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Engineering Changes JPADS 2K	-	-	0.050	-	-	0.168	-	-	0.300	-	-	0.300	-	-	-	-	-	0.300
CLS/Shipping JPADS 2K	-	-	0.046	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hardware JPADS 10K(†)	420.319	141	59.265	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
System Test & Evaluation, Production	-	-	5.786	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Engineering Changes	-	-	6.124	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fielding/Training	-	-	6.485	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Exhibit P-5, Cost Analysis: PB 2022 Army		Date: May 2021
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 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 Total		
	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	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	-	-	7.479	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Data	-	-	5.434	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Spares	-	-	1.376	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CLS/Shipping	-	-	0.799	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Recurring Cost	-	-	*170.852*	-	-	*2.040*	-	-	*2.040*	-	-	*2.081*	-	-	-	-	-	*2.081*
Subtotal: Flyaway Cost	**-**	**-**	***170.852***	**-**	**-**	***2.040***	**-**	**-**	***2.040***	**-**	**-**	***2.081***	**-**	**-**	**-**	**-**	**-**	***2.081***
Gross/Weapon System Cost	**591.183**	**-**	**170.852**	**72.857**	**-**	**2.040**	**72.857**	**-**	**2.040**	**74.321**	**-**	**2.081**	**-**	**-**	**-**	**74.321**	**-**	**2.081**

Secondary Distribution		FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Army	Quantity	-	-	-	-	-
	Total Obligation Authority	2.040	2.040	2.081	-	2.081
Total: Secondary Distribution	**Quantity**	**-**	**-**	**-**	**-**	**-**
	Total Obligation Authority	**2.040**	**2.040**	**2.081**	**-**	**2.081**

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2022 Army		**Date:** May 2021
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	✓	2020	Tobyhanna Army Depot / Tobyhanna, PA	C / IDIQ	RDECOM, Natick, MA	Mar 2020	Aug 2020	28	34.000	Y		
Hardware JPADS 2K	✓	2021	Tobyhanna Army Depot / Tobyhanna, PA	C / IDIQ	RDECOM, Natick, MA	Mar 2021	Aug 2021	28	36.000	Y		
Hardware JPADS 2K		2022	Tobyhanna Army Depot / Tobyhanna, PA	SS / FFP	RDECOM, Natick, MA	Mar 2022	Aug 2022	28	38.000	Y		
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 2022 Army	Date: May 2021
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 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026	To Complete	Total
Procurement Quantity *(Units in Each)*	328	284	710	362	-	362	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	143.424	11.451	23.324	36.163	-	36.163	-	-	-	-	-	-
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	143.424	11.451	23.324	36.163	-	36.163	-	-	-	-	-	-
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**143.424**	**11.451**	**23.324**	**36.163**	**-**	**36.163**	**-**	**-**	**-**	**-**	**-**	**-**
(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)*	437.268	40.320	32.851	99.898	-	99.898	-	-	-	-	-	-

Description:

The Family of Engineering Combat and Construction Sets (ECACS) is a family of systems that will support combat operations by construction engineer teams in urban, rural, and subterranean and dense environments. ECACS sets utilized in the range of urban environments will aid in detection, protection, surveillance, monitoring, evacuation and clearing. ECACS sets utilized in the range rural environments will allow clearing and troop mobility support areas to include airfields, ports, facilities, and roads. All of the ECACS sets support the Grow the Army initiative, which includes MRBC activations, Combat Engineer Company - Armored (CEC-A) unit conversions, and Combat Engineer Company - Infantry (CEC-I) unit conversions.

The Hydraulic, Electric, Pneumatic, Petroleum Operated Equipment (HEPPOE) replaces two legacy systems; the Hydraulic Electric Tool Outfit (HETO) and the Pneumatic Tool & Compressor Outfit (PTCO). Currently there is a large capability gap in the field that severely needs this materiel solution for a rapidly available, portable and modernized tool kit for the Engineer community, specifically GAP #11, BCT Lethality and Mobility of the critical large scale ground combat operations gaps and Gap #8, wet gap crossing. It supports missions by clearing buildings for repair and construction, clearing areas around road construction, port openings, transition and reconstruction operations. Supports critical Infrastructure repair and rescue during natural disasters and civil emergencies. Enables civil authority the security and stability in all areas of Theater Construction Operations. Army Acquisition Objective (AAO) for Hydraulic Electric Pneumatic Petroleum Operated Equipment (HEPPOE) is 1017.

The Engineer Equipment Set: Urban Operations, Platoon Set (UOpPS) consists of high technology equipment that provides Soldiers with enhanced capabilities to perform missions in urbanized or complex terrain. The Engineer Equipment Set: Urban Operations, Platoon Set (UOpPS) uniquely fills capability gaps that exist at the platoon level for conducting operations in the range of urban environments, specifically GAP #11, BCT Lethality and Mobility of the critical large scale ground combat operations gaps and Gap #8, wet gap crossing. It provides engineers and Soldiers with specialized tools enabling them to conduct operations in urban environments in a safe, more expedient manner. The components include remote viewing instruments, detectors for explosives and gases, portable welders, metal cutting torches, rescue tools, winch, and battery operated drills and saws. The set standardizes tools, reducing logistical support and provides a Type Classified (TC)-standard Army system. Army Acquisition Objective (AAO) for Urban Operations, Platoon Set (UOpPS) is 1177.

The Engineer Equipment Set: Urban Operations, Squad Set (UOpSS) consists of equipment that provides Soldiers with enhanced capabilities to perform missions in urbanized or complex terrain. The Engineer Equipment Set: Urban Operations, Squad Set (UOpSS) uniquely fills capability gaps that exist at the squad level for conducting operations in the range of urban environments, specifically GAP #11, BCT Lethality and Mobility of the critical large scale ground combat operations gaps and Gap #8, wet gap crossing. Components include portable blast shield, collapsible lightweight assault ladders, mechanical entry tools, and rappelling gear. This set supports dismounted engineer Soldiers and others in conducting Military Operations in Urban Terrain (MOUT). The set standardizes tools, reducing logistical support and provides a Type Classified (TC)-standard Army system. Army Acquisition Objective (AAO) for Urban Operations, Squad Set (UOpSS) is 1841.

Exhibit P-40, Budget Line Item Justification: PB 2022 Army		Date: May 2021
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		

Vertical Skills Engineer Construction Kits (VSECK) has six types which each provide tools and power equipment to meet maintenance and construction mission requirements.

VSECK Type I Carpenters Tool Kit Squad (CTKS) is a new configuration containing industrial quality hand tools, safety equipment, deployment bags and tool belts for up to eight Construction Engineers secured in a waterproof rapid inventory case. Currently, there is a large capability gap in the field that severely needs this materiel solution for a rapidly available, portable and modernized tool kit for the Engineer community, specifically GAP #11, BCT Lethality and Mobility of the critical large scale ground combat operations gaps and Gap #8, wet gap crossing.
Hand tools include hammers, utility knives, chisels, punches, hacksaws, hand saws, pliers, screwdrivers, squares and tape measures. VSECK Type I replaces one legacy system through modernization, consolidation and optimization. The legacy system this replaces does not meet current mission requirements and does not have any warranty associated with the current components. Army Acquisition Objective for Type I is 1,170.

VSECK Type II Carpenters Supplemental Tool Kit (CSTK) is a new configuration containing battery powered & carpentry hand tools to increase productivity at remote sites supporting a platoon size element. Currently, there is a large capability gap in the field that severely needs this materiel solution for a rapidly available, portable and modernized tool kit for the Engineer community, specifically GAP #11, BCT Lethality and Mobility of the critical large scale ground combat operations gaps and Gap #8, wet gap crossing. Cordless power tools include: hammer drills, right angle drills, circular saws, jig saws and reciprocating saws. The cordless tools are a minimum of 18v and standardized to use the same power source with a power management system capable of recharging multiple power sources simultaneously. VSECK Type II replaces one legacy system through modernization, consolidation and optimization. The legacy system this replaces does not meet current mission requirements and does not have any warranty associated with the current components. Army Acquisition Objective for Type II is 653.

VSECK Type III Carpenters Tool Kit (CTK) is a new configuration containing commercial pneumatic, electric & hand carpentry tools that enable Soldiers to perform common carpentry tasks including construction of fighting positions, shelters, base camps, POW camps, temporary structures, bridges, ports & repair of existing structures. Currently there is a large capability gap in the field that severely needs this materiel solution for a rapidly available, portable and modernized tool kit for the Engineer community, specifically Gap #11, BCT Lethality and Mobility of the critical large scale ground combat operations gaps. Tool load includes pneumatic nailer, blow gun, router, jig saw, 10" table saw, 10" circular saw, 14" cut off saw, 12" miter saw, nibbler, electric shears and tile cutter. VSECK Type III replaces one legacy system through modernization, consolidation and optimization. The legacy system this replaces does not meet current mission requirements and does not have any warranty associated with the current components. Army Acquisition Objective for Type III is 299.

VSECK Type IV Electricians Tool Kit (ETK) enables 3 electricians to perform construction & maintenance tasks related to distribution & transmission of electrical power: interior & exterior lighting, installation & repair of lighting & wiring aboard ships. Kit contains conduit benders, auger bits, pliers, knives, wood chisels, crimpers, tube & PVC cutters, key sets, levels multimeter, strippers, wrenches, ladders, electric saws & drills and flood lights. Currently there is a large capability gap in the field that severely needs this materiel solution for a rapidly available, portable and modernized tool kit for the Engineer community, specifically Gap #11, BCT Lethality and Mobility of the critical large scale ground combat operations gaps. VSECK IV replaces one legacy system through modernization, consolidation and optimization. The legacy system this replaces does not meet current mission requirements and does not have any warranty associated with the current components. Army Acquisition Objective for Type IV is 441.

VSECK Type V Mason and Concrete Tool Kit (MCTK) includes brick hammers, levels, chalk line, rulers, plumb bobs, trowels, floats, bull floats, specialized floats, screeds, edger, groover, brooms, hoses & nozzles, mortar mixer, scaffolding, sealant sprayer, pliers, vibrator, cut-off saws, grinder, rebar cutters & benders, hacksaws, knee boards, mortar boards & stands, buckets, brushes, laser level, come-a-long, tarps, hoes, rakes & shovels. Currently there is a large capability gap in the field that severely needs this materiel solution for a rapidly available, portable and modernized tool kit for the Engineer community, specifically Gap #11, BCT Lethality and Mobility of the critical large scale ground combat operations gaps. VSECK Type V replaces one legacy system through modernization, consolidation and optimization. The legacy system this replaces does not meet current mission requirements and does not have any warranty associated with the current components. Army Acquisition Objective for Type V is 611.

VSECK Type VI Plumbers and Pipefitters Tool Kit (PPTK) is specialized equipment required by a team of plumbers and pipefitters stock to perform construction and maintenance tasks working with metal, brass, aluminum, PVC or PEX. Currently there is a large capability gap in the field that severely needs this materiel solution for a rapidly available, portable and modernized tool kit for the Engineer community, specifically Gap #11, BCT Lethality and Mobility of the critical large scale ground combat operations gaps. Contains hand tools enabling performance of individual & collective tasks related to heating & air conditioning, water distribution, waste water removal & solid waste removal. The tool load includes: hammers, hack saws, chisels, wrenches, pliers, putty knives, screwdrivers, saws, level plumb bob, tool box, ladder, powered saws & drills, pry & line up bars, tubing & pipe cutters, floodlight, key set, & plunger. VSECK VI replaces three legacy systems through modernization, consolidation and optimization. The legacy systems this replaces do not meet current mission requirements and do not have any warranty associated with the current components. Army Acquisition Objective for Type VI is 309.

Exhibit P-40, Budget Line Item Justification: PB 2022 Army	Date: May 2021
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

Family of Power Utility Kits (FoPUK) provides the necessary equipment required to perform maintenance, repair and testing of high voltage power transmission lines and medium voltage power generation, to include related distribution equipment. The FoPUK supports Gap#7 Air & Missile Defense and the indispensable nature of electrical power supports administrative, health services and logistical support operations; would all be in jeopardy without the FoPUK. The FoPUK provides a modernized materiel solution to a lineman's tool kit, personal protective equipment (PPE), a rapidly deployable maintenance shelter for medium power generation and distribution systems, and PPE test equipment. Procuring the systems with in the Family of Power Utility Kits enable Prime Power Soldiers to safely and effectively construct, operate and maintain medium voltage electrical generation and distribution systems.

FoPUK Estimated Army Procurement Objective (APO): Modernized - Lineman's Tool Kit(M-LTK) 78; Electrical Personal Protective Equipment(E-PPE) 253; Service Kit Power Plant(SKPP) 22; Electrical Personal Protective Equipment Test Equipment(E-PPE-TE) 1.

Secondary Distribution		FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026
Army	Quantity	218	142	32	-	32	-	-	-	-
	Total Obligation Authority	9.965	3.413	8.985	-	8.985	-	-	-	-
ANG	Quantity	-	355	177	-	177	-	-	-	-
	Total Obligation Authority	-	14.963	20.998	-	20.998	-	-	-	-
AR	Quantity	66	213	153	-	153	-	-	-	-
	Total Obligation Authority	1.486	4.948	6.180	-	6.180	-	-	-	-
Total: Secondary Distribution	**Quantity**	**284**	**710**	**362**	**-**	**362**	**-**	**-**	**-**	**-**
	Total Obligation Authority	**11.451**	**23.324**	**36.163**	**-**	**36.163**	**-**	**-**	**-**	**-**

Exhibit P-40, Budget Line Item Justification: PB 2022 Army	Date: May 2021
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 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/ MAIS Code	Quantity / Total Cost (Each) I ($ M)	Quantity / Total Cost (Each) I ($ M)	Quantity / Total Cost (Each) I ($ M)	Quantity / Total Cost (Each) I ($ M)	Quantity / Total Cost (Each) I ($ M)	Quantity / Total Cost (Each) I ($ M)
P-5	R70120 / URBAN OPERATIONS, PLATOON SET	P-5a, P-21	A		45 / 67.783	12 / 2.043	27 / 4.275	105 / 15.587	- / -	105 / 15.587
P-5	R70130 / URBAN OPERATIONS, SQUAD SET	P-5a	A		94 / 66.749	44 / 2.346	55 / 4.074	72 / 5.411	- / -	72 / 5.411
P-5	R70170 / Vertical Skills Engr Const Kit: Type VI	P-5a	A		60 / 4.382	66 / 3.614	41 / 1.712	- / -	- / -	- / -
P-5	R70180 / Vertical Skills Engr Const Kit: Type V	P-5a	A		15 / 1.180	43 / 1.463	87 / 3.675	38 / 2.147	- / -	38 / 2.147
P-5	R70185 / Vertical Skills Engr Const Kit: Type IV	P-5a	A		32 / 0.905	31 / 0.603	82 / 1.964	71 / 2.192	- / -	71 / 2.192
P-5	R70195 / Vertical Skills Engr Const Kit: Type III	P-5a	A		17 / 0.898	13 / 0.332	18 / 0.473	69 / 2.614	- / -	69 / 2.614
P-5	R70196 / Vertical Skills Engr Const Kit: Type II	P-5a	A		31 / 0.901	34 / 0.622	254 / 5.232	- / -	- / -	- / -
P-5	R70198 / Vertical Skills Engr Const Kit: Type I	P-5a	A		34 / 0.626	41 / 0.428	146 / 1.919	- / -	- / -	- / -
P-5	R70211 / POWER UTILITY KITS	P-5a, P-21			- / -	- / -	- / -	7 / 8.212	- / -	7 / 8.212
P-40	**Total Gross/Weapon System Cost**				**328 / 143.424**	**284 / 11.451**	**710 / 23.324**	**362 / 36.163**	**- / -**	**362 / 36.163**

*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:

FY22 base funding in the amount of $15.587 million procures 105 Urban Operations Platoon Sets. The specialized high technology tools included in this kit provide engineers, infantry, military police and other military units with enhanced capability to conduct operations in urban environments in a safe and expeditious manner. This set will standardize the tools used for conducting urban operations thereby reducing logistical support and provide a Type Classified (TC)-standard Army system.

FY22 base funding in the amount of $5.411 million procures 72 Urban Operations Squad Sets. The specialized low technology tools included in this set provide engineers, infantry, military police and other military units with enhanced capability to conduct operations in urban environments in a safe and expeditious manner. This set will standardize the tools used for conducting urban operations thereby reducing logistical support and provide a Type Classified (TC)-Army system.

FY22 base funding in the amount of $2.147 million procures 38 Type V VSECK assets. This will increase productivity, expand capabilities, reduce risk and will contribute to rapid mobility of Construction Engineers. Providing this capability to the Soldier will increase the Soldier's ability to complete the required missions, provide support to civil authorities and deter/defeat hybrid threats in support of the Army process.

FY22 base funding in the amount of $2.192 million procures 71 Type IV VSECK assets. This will increase productivity, expand capabilities, reduce risk and will contribute to rapid mobility of Construction Engineers. Providing this capability to the Soldier will increase the Soldier's ability to complete the required missions, provide support to civil authorities and deter/defeat hybrid threats in support of the Army process.

FY22 base funding in the amount of $2.614 million procures 69 Type III VSECK assets. This will increase productivity, expand capabilities, reduce risk and will contribute to rapid mobility of Construction Engineers. Providing this capability to the Soldier will increase the Soldier's ability to complete the required missions, provide support to civil authorities and deter/defeat hybrid threats in support of the Army process.

FY22 Base Procurement funding in the amount of $8.212 million will be provided for the Family of Power Utility Kits Program (FoPUK) to procure 7 Service Kit Power Plants (SKPP). The procurement of these items will provide the capability improvements over Legacy systems by modernizing, standardizing, consolidating. Modernization of obsolete equipment ensures Soldier safety, reduce tool maintenance

Exhibit P-40, Budget Line Item Justification: PB 2022 Army		Date: May 2021
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		

by providing industry standard equipment, logistics' footprint and reduce redundancies. It will also improve Soldier mobility to safely perform contingency power operations and provide containerization for deployment or storage/security of items in kit.

Note: FY22 request for the Family of Power Utility Kit program (FoPUK) is a transfer to this Family of Engineering Combat and Construction Sets Portfolio. Note that the prior year funding and exhibits can be found under ML5301 (ML5325) Items Less Than $5M Engineering Support Portfolio.

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 2022 Army		Date: May 2021
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 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Procurement Quantity *(Units in Each)*	45	12	27	105	-	105
Gross/Weapon System Cost *($ in Millions)*	67.783	2.043	4.275	15.587	-	15.587
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	67.783	2.043	4.275	15.587	-	15.587
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**67.783**	**2.043**	**4.275**	**15.587**	**-**	**15.587**
(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)*	1,506.289	170.250	158.333	148.448	-	148.448

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

Cost Elements	Prior Years			FY 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 Total		
	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	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	-	-	5.047	-	-	0.260	-	-	0.216	-	-	0.525	-	-	-	-	-	0.525
Quality Assurance Support	-	-	0.896	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Engineering Support	-	-	12.005	-	-	0.050	-	-	0.051	-	-	0.090	-	-	-	-	-	0.090
TPF Fielding Support	-	-	2.728	-	-	0.092	-	-	0.217	-	-	0.377	-	-	-	-	-	0.377
Log Support	-	-	0.300	-	-	0.061	-	-	0.174	-	-	0.175	-	-	-	-	-	0.175
Technical Manuals	-	-	-	-	-	-	-	-	-	-	-	0.003	-	-	-	-	-	0.003
Subtotal: Recurring Cost	-	-	*20.976*	-	-	*0.463*	-	-	*0.658*	-	-	*1.170*	-	-	-	-	-	*1.170*
Subtotal: Flyaway Cost	**-**	**-**	***20.976***	**-**	**-**	***0.463***	**-**	**-**	***0.658***	**-**	**-**	***1.170***	**-**	**-**	**-**	**-**	**-**	***1.170***
Hardware Cost																		
Recurring Cost																		
Urban Ops Platoon(†)	68.632	682	46.807	131.626	12	1.580	133.959	27	3.617	137.307	105	14.417	-	-	-	137.307	105	14.417
Subtotal: Recurring Cost	-	-	*46.807*	-	-	*1.580*	-	-	*3.617*	-	-	*14.417*	-	-	-	-	-	*14.417*
Subtotal: Hardware Cost	**-**	**-**	***46.807***	**-**	**-**	***1.580***	**-**	**-**	***3.617***	**-**	**-**	***14.417***	**-**	**-**	**-**	**-**	**-**	***14.417***
Gross/Weapon System Cost	**1,506.289**	**45**	**67.783**	**170.250**	**12**	**2.043**	**158.333**	**27**	**4.275**	**148.448**	**105**	**15.587**	**-**	**-**	**-**	**148.448**	**105**	**15.587**

Remarks:
FY22 Program Management and Support Costs have increased from FY21 because FY22 funding will support FY22 and FY23 Program Management and System Support Costs which encompasses Engineering, Logistics, Quality Assurance, Total Package Fielding, and Travel.

Exhibit P-5, Cost Analysis: PB 2022 Army		Date: May 2021
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 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Army	Quantity	12	-	-	-	-
	Total Obligation Authority	2.043	-	-	-	-
ANG	Quantity	-	27	105	-	105
	Total Obligation Authority	-	4.275	15.587	-	15.587
Total: Secondary Distribution	**Quantity**	**12**	**27**	**105**	**-**	**105**
	Total Obligation Authority	**2.043**	**4.275**	**15.587**	**-**	**15.587**

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2022 Army		Date: May 2021
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(†)		2020	BEYOND VISION / Milwaukee, WI	SS / FFP	TACOM Warren, MI	Jan 2020	Jun 2020	12	131.626	Y		Jun 2018
Urban Ops Platoon(†)		2021	BEYOND VISION / Milwaukee, WI	SS / FFP	TACOM Warren, MI	Mar 2021	Aug 2021	27	133.959	Y		Jun 2018
Urban Ops Platoon(†)		2022	BEYOND VISION / Milwaukee, WI	SS / FFP	TACOM, Warren, MI	Mar 2022	Aug 2022	105	137.307	Y		Jun 2018

(†) indicates the presence of a P-21

Exhibit P-21, Production Schedule: PB 2022 Army		Date: May 2021
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 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	
Urban Ops Platoon																															
Prior Years Deliveries: 682																															
	1	2020	ARMY	12	0	12				A -	-	-	-	-	5	5	2														0
	1	2021	ARMY	27	0	27																		A -	-	-	-	-	9	9	9
	1	2022	ARMY	105	0	105																									105
							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 2022 Army		**Date:** May 2021
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 2022												Fiscal Year 2023												BALANCE
										Calendar Year 2022												Calendar Year 2023									
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2021	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: 682																															
	1	2020	ARMY	12	12	0																									0
	1	2021	ARMY	27	18	9	9																								0
	1	2022	ARMY	105	0	105						A -	-	-	-	-	9	9	9	9	9	9	9	10	10	10	10	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 2022 Army		Date: May 2021
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 2022	1-8-5 For 2022	MAX For 2022	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	BEYOND 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 2022 Army		Date: May 2021
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 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Procurement Quantity *(Units in Each)*	94	44	55	72	-	72
Gross/Weapon System Cost *($ in Millions)*	66.749	2.346	4.074	5.411	-	5.411
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	66.749	2.346	4.074	5.411	-	5.411
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**66.749**	**2.346**	**4.074**	**5.411**	**-**	**5.411**
(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)*	710.096	53.318	74.073	75.153	-	75.153

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

Cost Elements	Prior Years			FY 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 Total		
	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	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	-	-	0.521	-	-	-	-	-	0.197	-	-	0.170	-	-	-	-	-	0.170
Engineering Support	-	-	0.046	-	-	-	-	-	0.053	-	-	0.078	-	-	-	-	-	0.078
Quality Assurance Support	-	-	0.500	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TPF Fielding Support	-	-	0.550	-	-	-	-	-	0.159	-	-	0.292	-	-	-	-	-	0.292
Log Support	-	-	0.050	-	-	-	-	-	0.165	-	-	0.175	-	-	-	-	-	0.175
Subtotal: Recurring Cost	-	-	*1.667*	-	-	-	-	-	*0.574*	-	-	*0.715*	-	-	-	-	-	*0.715*
Subtotal: Flyaway Cost	**-**	**-**	***1.667***	**-**	**-**	**-**	**-**	**-**	***0.574***	**-**	**-**	***0.715***	**-**	**-**	**-**	**-**	**-**	***0.715***
Hardware Cost																		
Recurring Cost																		
Urban Ops Squad Hardware(†)	52.998	1,228	65.082	53.320	44	2.346	63.630	55	3.500	65.220	72	4.696	-	-	-	65.220	72	4.696
Subtotal: Recurring Cost	-	-	*65.082*	-	-	*2.346*	-	-	*3.500*	-	-	*4.696*	-	-	-	-	-	*4.696*
Subtotal: Hardware Cost	**-**	**-**	***65.082***	**-**	**-**	***2.346***	**-**	**-**	***3.500***	**-**	**-**	***4.696***	**-**	**-**	**-**	**-**	**-**	***4.696***
Gross/Weapon System Cost	**710.096**	**94**	**66.749**	**53.318**	**44**	**2.346**	**74.073**	**55**	**4.074**	**75.153**	**72**	**5.411**	**-**	**-**	**-**	**75.153**	**72**	**5.411**

Remarks:
FY22 Program Management and Support Costs have increased from FY21 because FY22 funding will support FY22 and FY23 Program Management and System Support Costs which encompasses Engineering, Logistics, Quality Assurance, Total Package Fielding, and Travel.

Exhibit P-5, Cost Analysis: PB 2022 Army		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 25	**P-1 Line Item Number / Title:** 9462R70001 / Family Of Engr Combat and Construction Sets	**Item Number / Title [DODIC]:** R70130 / URBAN OPERATIONS, SQUAD SET
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	

FY20 P40 Gross/Weapon Unit Cost should reflect $68,328.74.

FY20 P5 Unit cost should reflect $65,532. Total hardware procured at $2,751,409.32.

Secondary Distribution		FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Army	Quantity	44	-	-	-	-
	Total Obligation Authority	2.346	-	-	-	-
ANG	Quantity	-	55	72	-	72
	Total Obligation Authority	-	4.074	5.411	-	5.411
Total: Secondary Distribution	**Quantity**	**44**	**55**	**72**	**-**	**72**
	Total Obligation Authority	**2.346**	**4.074**	**5.411**	**-**	**5.411**

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2022 Army		Date: May 2021
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 Hardware		2019	Beyond Vision / Milwaukee, WI	SS / FFP	TACOM, Warren, MI	Apr 2019	Aug 2019	66	18.561	Y		Mar 2018
Urban Ops Squad Hardware		2020	Beyond Vision / Milwaukee, WI	SS / FFP	TACOM, Warren, MI	Jan 2020	Jun 2020	44	53.320	Y		Mar 2018
Urban Ops Squad Hardware		2021	Beyond Vision / Milwaukee, WI	SS / FFP	TACOM Warren, MI	Mar 2021	Aug 2021	55	63.630	Y		Mar 2018
Urban Ops Squad Hardware		2022	Beyond Vision / Milwaukee, WI	SS / FFP	TACOM, Warren, MI	Mar 2022	Aug 2022	72	65.222	Y		Mar 2018

Exhibit P-5, Cost Analysis: PB 2022 Army		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 25	**P-1 Line Item Number / Title:** 9462R70001 / Family Of Engr Combat and Construction Sets	**Item Number / Title [DODIC]:** R70170 / Vertical Skills Engr Const Kit: Type VI
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Procurement Quantity *(Units in Each)*	60	66	41	-	-	-
Gross/Weapon System Cost *($ in Millions)*	4.382	3.614	1.712	-	-	-
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	4.382	3.614	1.712	-	-	-
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**4.382**	**3.614**	**1.712**	**-**	**-**	**-**
(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)*	73.033	54.758	41.756	-	-	-

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

Cost Elements	Prior Years			FY 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 Total		
	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	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	-	-	0.642	-	-	0.563	-	-	0.061	-	-	-	-	-	-	-	-	-
Quality Assurance	-	-	0.200	-	-	0.250	-	-	0.005	-	-	-	-	-	-	-	-	-
Engineering	-	-	0.200	-	-	0.250	-	-	0.026	-	-	-	-	-	-	-	-	-
Log Support	-	-	0.250	-	-	0.200	-	-	0.046	-	-	-	-	-	-	-	-	-
TPF	-	-	0.500	-	-	0.250	-	-	0.072	-	-	-	-	-	-	-	-	-
Transportation	-	-	0.400	-	-	0.400	-	-	0.194	-	-	-	-	-	-	-	-	-
ECP	-	-	-	-	-	-	-	-	0.225	-	-	-	-	-	-	-	-	-
Subtotal: Recurring Cost	-	-	*2.192*	-	-	*1.913*	-	-	*0.629*	-	-	-	-	-	-	-	-	-
Subtotal: Flyaway Cost	**-**	**-**	***2.192***	**-**	**-**	***1.913***	**-**	**-**	***0.629***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Hardware Cost																		
Recurring Cost																		
Hardware(†)	24.611	89	2.190	25.770	66	1.701	26.415	41	1.083	-	-	-	-	-	-	-	-	-
Subtotal: Recurring Cost	-	-	*2.190*	-	-	*1.701*	-	-	*1.083*	-	-	-	-	-	-	-	-	-
Subtotal: Hardware Cost	**-**	**-**	***2.190***	**-**	**-**	***1.701***	**-**	**-**	***1.083***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Gross/Weapon System Cost	**73.033**	**60**	**4.382**	**54.758**	**66**	**3.614**	**41.756**	**41**	**1.712**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**

Remarks:
FY20 P40 Gross/Weapon System Unit Cost should be $40,311.

Exhibit P-5, Cost Analysis: PB 2022 Army		**Date:** May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 25	**P-1 Line Item Number / Title:** 9462R70001 / Family Of Engr Combat and Construction Sets	**Item Number / Title [DODIC]:** R70170 / Vertical Skills Engr Const Kit: Type VI
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	

FY20 P40 Resource Summary, Secondary Distribution, and P5 reflect erroneous allotment, it should be $2,661. AE2S did not feed over properly after Actuals Data call, support costs were adjusted (increased) to reflect inaccurate allotment of $3,614. Support costs are: PM Support $.539, Engineering $.135, Quality Assurance $.029, Total Package Fielding $.028, Logistics $.204, and First Destination Transportation (FDT) $.025

Prior year P40 reflects erroneous quantities. Quantities should reflect 89.

Secondary Distribution		FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Army	Quantity	14	-	-	-	-
	Total Obligation Authority	2.274	-	-	-	-
ANG	Quantity	-	41	-	-	-
	Total Obligation Authority	-	1.712	-	-	-
AR	Quantity	52	-	-	-	-
	Total Obligation Authority	1.340	-	-	-	-
Total: Secondary Distribution	**Quantity**	**66**	**41**	**-**	**-**	**-**
	Total Obligation Authority	**3.614**	**1.712**	**-**	**-**	**-**

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2022 Army		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 25	**P-1 Line Item Number / Title:** 9462R70001 / Family Of Engr Combat and Construction Sets	**Item Number / Title [DODIC]:** R70170 / Vertical Skills Engr Const Kit: Type VI

Cost Elements	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		2019	I.B. Milwaukee - West Allis, WI 53214 / Milwaukee, WI	SS / FFP	Warren, MI	Mar 2019	Jun 2019	12	25.000	Y		Jul 2016
Hardware		2020	I.B. Milwaukee - West Allis, WI 53214 / Milwaukee, WI	SS / FFP	Warren, MI	Jan 2020	May 2020	66	25.770	Y		Jul 2016
Hardware		2021	I.B. Milwaukee - West Allis, WI 53214 / Milwaukee, WI	SS / FFP	Warren, MI	Mar 2021	Jul 2021	41	26.415	Y		Jul 2016

Exhibit P-5, Cost Analysis: PB 2022 Army		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 25	**P-1 Line Item Number / Title:** 9462R70001 / Family Of Engr Combat and Construction Sets	**Item Number / Title [DODIC]:** R70180 / Vertical Skills Engr Const Kit: Type V
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Procurement Quantity *(Units in Each)*	15	43	87	38	-	38
Gross/Weapon System Cost *($ in Millions)*	1.180	1.463	3.675	2.147	-	2.147
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	1.180	1.463	3.675	2.147	-	2.147
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**1.180**	**1.463**	**3.675**	**2.147**	**-**	**2.147**
(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)*	78.667	34.023	42.241	56.500	-	56.500

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

Cost Elements	Prior Years			FY 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 Total		
	Unit Cost *($ K)*	Qty *(Each)*	Total Cost *($ M)*	Unit Cost *($ K)*	Qty *(Each)*	Total Cost *($ M)*	Unit Cost *($ K)*	Qty *(Each)*	Total Cost *($ M)*	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	-	-	0.135	-	-	-	-	-	0.005	-	-	0.037	-	-	-	-	-	0.037
Engineering	-	-	0.015	-	-	-	-	-	0.026	-	-	0.094	-	-	-	-	-	0.094
Program Support	-	-	-	-	-	-	-	-	0.133	-	-	0.068	-	-	-	-	-	0.068
Log Support	-	-	0.005	-	-	-	-	-	0.046	-	-	0.192	-	-	-	-	-	0.192
TPF	-	-	0.039	-	-	-	-	-	0.072	-	-	0.240	-	-	-	-	-	0.240
Transportation	-	-	0.075	-	-	-	-	-	0.358	-	-	0.155	-	-	-	-	-	0.155
Engineer Change Proposal	-	-	-	-	-	-	-	-	-	-	-	0.002	-	-	-	-	-	0.002
Subtotal: Recurring Cost	-	-	*0.269*	-	-	-	-	-	*0.640*	-	-	*0.788*	-	-	-	-	-	*0.788*
Subtotal: Flyaway Cost	**-**	**-**	***0.269***	**-**	**-**	**-**	**-**	**-**	***0.640***	**-**	**-**	***0.788***	**-**	**-**	**-**	**-**	**-**	***0.788***
Hardware Cost																		
Recurring Cost																		
VSECK Type V(†)	32.548	28	0.911	34.034	43	1.463	34.885	87	3.035	35.767	38	1.359	-	-	-	35.767	38	1.359
Subtotal: Recurring Cost	-	-	*0.911*	-	-	*1.463*	-	-	*3.035*	-	-	*1.359*	-	-	-	-	-	*1.359*
Subtotal: Hardware Cost	**-**	**-**	***0.911***	**-**	**-**	***1.463***	**-**	**-**	***3.035***	**-**	**-**	***1.359***	**-**	**-**	**-**	**-**	**-**	***1.359***
Gross/Weapon System Cost	**78.667**	**15**	**1.180**	**34.023**	**43**	**1.463**	**42.241**	**87**	**3.675**	**56.500**	**38**	**2.147**	**-**	**-**	**-**	**56.500**	**38**	**2.147**

Remarks:

Exhibit P-5, Cost Analysis: PB 2022 Army		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 25	**P-1 Line Item Number / Title:** 9462R70001 / Family Of Engr Combat and Construction Sets	**Item Number / Title [DODIC]:** R70180 / Vertical Skills Engr Const Kit: Type V

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

FY22 Support Costs have increased from FY21 because FY22 funding will support FY22 and FY23 Program Management and System Support Costs which encompasses Engineering, Logistics, Quality Assurance, Total Package Fielding, and Travel.

FY22 P40 Gross/Weapon System Unit Cost increased from prior year due to the procurement of less quantities and increased support cost which will cover FY22 and FY23.

FY20 P40 Resource Summary Gross Weapon System Unit Cost should reflect $34,034.

FY20 P5 Support costs were funded with TYPE VI funding.

Prior year P40 reflects erroneous quantities. Quantities should reflect 28.

Secondary Distribution		FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Army	Quantity	43	27	-	-	-
	Total Obligation Authority	1.463	1.168	-	-	-
AR	Quantity	-	60	38	-	38
	Total Obligation Authority	-	2.507	2.147	-	2.147
Total: Secondary Distribution	**Quantity**	**43**	**87**	**38**	**-**	**38**
	Total Obligation Authority	**1.463**	**3.675**	**2.147**	**-**	**2.147**

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2022 Army		Date: May 2021
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		2019	I. B. Milwaukee / West Allis, WI 53214	SS / FFP	TACOM, Warren, MI	Mar 2019	Jun 2019	5	33.200	Y		Jul 2016
VSECK Type V		2020	I. B. Milwaukee / West Allis, WI 53214	SS / FFP	TACOM, Warren, MI	Jan 2020	May 2020	43	34.034	Y		Jul 2016
VSECK Type V		2021	I. B. Milwaukee / West Allis, WI 53214	SS / FFP	TACOM, Warren, MI	Mar 2021	Jun 2021	87	34.885	Y		Jul 2016
VSECK Type V		2022	I. B. Milwaukee / West Allis, WI 53214	SS / FFP	TACOM, Warren, MI	Mar 2022	Jun 2022	38	35.763	Y		Jul 2016

Exhibit P-5, Cost Analysis: PB 2022 Army		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 25	**P-1 Line Item Number / Title:** 9462R70001 / Family Of Engr Combat and Construction Sets	**Item Number / Title [DODIC]:** R70185 / Vertical Skills Engr Const Kit: Type IV
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Procurement Quantity *(Units in Each)*	32	31	82	71	-	71
Gross/Weapon System Cost *($ in Millions)*	0.905	0.603	1.964	2.192	-	2.192
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	0.905	0.603	1.964	2.192	-	2.192
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**0.905**	**0.603**	**1.964**	**2.192**	**-**	**2.192**
(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)*	28.281	19.452	23.951	30.873	-	30.873

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

Cost Elements	Prior Years			FY 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 Total		
	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	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	-	-	0.010	-	-	-	-	-	0.072	-	-	0.113	-	-	-	-	-	0.113
Quality Assurance	-	-	0.010	-	-	-	-	-	0.005	-	-	0.037	-	-	-	-	-	0.037
Engineering	-	-	0.010	-	-	-	-	-	0.026	-	-	0.094	-	-	-	-	-	0.094
Log Support	-	-	0.035	-	-	-	-	-	0.046	-	-	0.192	-	-	-	-	-	0.192
TPF	-	-	0.047	-	-	-	-	-	0.072	-	-	0.285	-	-	-	-	-	0.285
TRANSPORTATION	-	-	0.020	-	-	-	-	-	0.108	-	-	0.020	-	-	-	-	-	0.020
Subtotal: Recurring Cost	-	-	*0.132*	-	-	-	-	-	*0.329*	-	-	*0.741*	-	-	-	-	-	*0.741*
Subtotal: Flyaway Cost	**-**	**-**	***0.132***	**-**	**-**	**-**	**-**	**-**	***0.329***	**-**	**-**	***0.741***	**-**	**-**	**-**	**-**	**-**	***0.741***
Hardware Cost																		
Recurring Cost																		
VSECK TYPE IV(†)	18.847	41	0.773	19.454	31	0.603	19.939	82	1.635	20.439	71	1.451	-	-	-	20.439	71	1.451
Subtotal: Recurring Cost	-	-	*0.773*	-	-	*0.603*	-	-	*1.635*	-	-	*1.451*	-	-	-	-	-	*1.451*
Subtotal: Hardware Cost	**-**	**-**	***0.773***	**-**	**-**	***0.603***	**-**	**-**	***1.635***	**-**	**-**	***1.451***	**-**	**-**	**-**	**-**	**-**	***1.451***
Gross/Weapon System Cost	**28.281**	**32**	**0.905**	**19.452**	**31**	**0.603**	**23.951**	**82**	**1.964**	**30.873**	**71**	**2.192**	**-**	**-**	**-**	**30.873**	**71**	**2.192**

Remarks:
FY22 Program Management and Support Costs have increased from FY21 because FY22 funding will support FY22 and FY23 Program Management and System Support Costs which encompasses Engineering, Logistics, Quality Assurance, Total Package Fielding, and Travel.

Exhibit P-5, Cost Analysis: PB 2022 Army		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 25	**P-1 Line Item Number / Title:** 9462R70001 / Family Of Engr Combat and Construction Sets	**Item Number / Title [DODIC]:** R70185 / Vertical Skills Engr Const Kit: Type IV
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	

FY20 Support costs were funded with TYPE VI funding.

Prior year P40 reflects erroneous quantities. Quantities should reflect 41.

Secondary Distribution		FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Army	Quantity	31	17	25	-	25
	Total Obligation Authority	0.603	0.408	0.773	-	0.773
ANG	Quantity	-	65	-	-	-
	Total Obligation Authority	-	1.556	-	-	-
AR	Quantity	-	-	46	-	46
	Total Obligation Authority	-	-	1.419	-	1.419
Total: Secondary Distribution	**Quantity**	**31**	**82**	**71**	**-**	**71**
	Total Obligation Authority	**0.603**	**1.964**	**2.192**	**-**	**2.192**

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2022 Army		Date: May 2021
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		2019	I. B. Milwaukee / West Allis, WI 53214	SS / FFP	TACOM, Warren, MI	Mar 2019	Jun 2019	9	19.000	Y		Jul 2016
VSECK TYPE IV		2020	I. B. Milwaukee / West Allis, WI 53214	SS / FFP	TACOM, Warren, MI	Jan 2020	May 2020	31	19.454	Y		Jul 2016
VSECK TYPE IV		2021	I. B. Milwaukee / West Allis, WI 53214	SS / FFP	TACOM, Warren, MI	Mar 2021	Jun 2021	82	19.939	Y		Jul 2016
VSECK TYPE IV		2022	I. B. Milwaukee / West Allis, WI 53214	SS / FFP	TACOM, Warren, MI	Mar 2022	Jun 2022	71	20.439	Y		Jul 2016

Exhibit P-5, Cost Analysis: PB 2022 Army		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 25	**P-1 Line Item Number / Title:** 9462R70001 / Family Of Engr Combat and Construction Sets	**Item Number / Title [DODIC]:** R70195 / Vertical Skills Engr Const Kit: Type III
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Procurement Quantity *(Units in Each)*	17	13	18	69	-	69
Gross/Weapon System Cost *($ in Millions)*	0.898	0.332	0.473	2.614	-	2.614
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	0.898	0.332	0.473	2.614	-	2.614
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**0.898**	**0.332**	**0.473**	**2.614**	**-**	**2.614**
(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)*	52.824	25.538	26.278	37.884	-	37.884

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

Cost Elements	Prior Years			FY 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 Total		
	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	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	-	-	0.041	-	-	-	-	-	0.002	-	-	0.149	-	-	-	-	-	0.149
Quality Assurance	-	-	0.010	-	-	-	-	-	-	-	-	0.037	-	-	-	-	-	0.037
Engineering	-	-	0.013	-	-	-	-	-	-	-	-	0.094	-	-	-	-	-	0.094
Log Support	-	-	-	-	-	-	-	-	-	-	-	0.192	-	-	-	-	-	0.192
TPF	-	-	0.040	-	-	-	-	-	-	-	-	0.265	-	-	-	-	-	0.265
Transportation	-	-	0.060	-	-	-	-	-	-	-	-	0.025	-	-	-	-	-	0.025
Subtotal: Recurring Cost	-	-	*0.164*	-	-	-	-	-	*0.002*	-	-	*0.762*	-	-	-	-	-	*0.762*
Subtotal: Flyaway Cost	**-**	**-**	***0.164***	**-**	**-**	**-**	**-**	**-**	***0.002***	**-**	**-**	***0.762***	**-**	**-**	**-**	**-**	**-**	***0.762***
Hardware Cost																		
Recurring Cost																		
VSECK Type III(†)	24.467	30	0.734	25.570	13	0.332	26.192	18	0.471	26.846	69	1.852	-	-	-	26.846	69	1.852
Subtotal: Recurring Cost	-	-	*0.734*	-	-	*0.332*	-	-	*0.471*	-	-	*1.852*	-	-	-	-	-	*1.852*
Subtotal: Hardware Cost	**-**	**-**	***0.734***	**-**	**-**	***0.332***	**-**	**-**	***0.471***	**-**	**-**	***1.852***	**-**	**-**	**-**	**-**	**-**	***1.852***
Gross/Weapon System Cost	**52.824**	**17**	**0.898**	**25.538**	**13**	**0.332**	**26.278**	**18**	**0.473**	**37.884**	**69**	**2.614**	**-**	**-**	**-**	**37.884**	**69**	**2.614**

Remarks:
FY22 Program Management and Support Costs have increased from FY21 because FY22 funding will support FY22 and FY23 Program Management and System Support Costs which encompasses Engineering, Logistics, Quality Assurance, Total Package Fielding, and Travel.

Exhibit P-5, Cost Analysis: PB 2022 Army		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 25	**P-1 Line Item Number / Title:** 9462R70001 / Family Of Engr Combat and Construction Sets	**Item Number / Title [DODIC]:** R70195 / Vertical Skills Engr Const Kit: Type III
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	

FY20 P5 Support costs were funded with TYPE VI funding.

Secondary Distribution		FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Army	Quantity	13	6	-	-	-
	Total Obligation Authority	0.332	0.156	-	-	-
AR	Quantity	-	12	69	-	69
	Total Obligation Authority	-	0.317	2.614	-	2.614
Total: Secondary Distribution	**Quantity**	**13**	**18**	**69**	**-**	**69**
	Total Obligation Authority	**0.332**	**0.473**	**2.614**	**-**	**2.614**

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2022 Army		Date: May 2021
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		2019	I. B. Milwaukee / West Allis, WI 53214	SS / FFP	TACOM, Warren, MI	Mar 2019	Jun 2019	6	25.000	Y		Jul 2016
VSECK Type III		2020	I. B. Milwaukee / West Allis, WI 53214	SS / FFP	TACOM, Warren, MI	Jan 2020	May 2020	13	25.570	Y		Jul 2016
VSECK Type III		2021	I. B. Milwaukee / West Allis, WI 53214	SS / FFP	TACOM, Warren, MI	Mar 2021	Jun 2021	18	26.192	Y		Jul 2016
VSECK Type III		2022	I. B. Milwaukee / West Allis, WI 53214	SS / FFP	TACOM, Warren, MI	Mar 2022	Jun 2022	69	26.841	Y		Jul 2016

Exhibit P-5, Cost Analysis: PB 2022 Army		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 25	**P-1 Line Item Number / Title:** 9462R70001 / Family Of Engr Combat and Construction Sets	**Item Number / Title [DODIC]:** R70196 / Vertical Skills Engr Const Kit: Type II
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Procurement Quantity *(Units in Each)*	31	34	254	-	-	-
Gross/Weapon System Cost *($ in Millions)*	0.901	0.622	5.232	-	-	-
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	0.901	0.622	5.232	-	-	-
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**0.901**	**0.622**	**5.232**	**-**	**-**	**-**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)						
Initial Spares *($ in Millions)*	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Thousands)*	29.065	18.294	20.598	-	-	-

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

Cost Elements	Prior Years			FY 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 Total		
	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	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	-	-	0.042	-	-	-	-	-	0.159	-	-	-	-	-	-	-	-	-
Quality Assurance	-	-	0.013	-	-	-	-	-	0.005	-	-	-	-	-	-	-	-	-
Engineering	-	-	0.012	-	-	-	-	-	0.026	-	-	-	-	-	-	-	-	-
Log Support	-	-	-	-	-	-	-	-	0.046	-	-	-	-	-	-	-	-	-
TPF	-	-	0.015	-	-	-	-	-	0.072	-	-	-	-	-	-	-	-	-
Transportation	-	-	0.071	-	-	-	-	-	0.162	-	-	-	-	-	-	-	-	-
Subtotal: Recurring Cost	-	-	*0.153*	-	-	-	-	-	*0.470*	-	-	-	-	-	-	-	-	-
Subtotal: Flyaway Cost	**-**	**-**	***0.153***	**-**	**-**	**-**	**-**	**-**	***0.470***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Hardware Cost																		
Recurring Cost																		
VSECK TYPE II(†)	10.686	70	0.748	18.293	34	0.622	18.748	254	4.762	-	-	-	-	-	-	-	-	-
Subtotal: Recurring Cost	-	-	*0.748*	-	-	*0.622*	-	-	*4.762*	-	-	-	-	-	-	-	-	-
Subtotal: Hardware Cost	**-**	**-**	***0.748***	**-**	**-**	***0.622***	**-**	**-**	***4.762***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Gross/Weapon System Cost	**29.065**	**31**	**0.901**	**18.294**	**34**	**0.622**	**20.598**	**254**	**5.232**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**

Remarks:
FY22 has no funding for Vertical Skills Engineer Construction TYPE II Kits.

FY20 P5 Support costs were funded out of TYPE VI.

Exhibit P-5, Cost Analysis: PB 2022 Army		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 25	**P-1 Line Item Number / Title:** 9462R70001 / Family Of Engr Combat and Construction Sets	**Item Number / Title [DODIC]:** R70196 / Vertical Skills Engr Const Kit: Type II
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	

Prior year P40 Resource Summary reflects erroneous quantities. Quantities should reflect 70.

Secondary Distribution		FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Army	Quantity	34	58	-	-	-
	Total Obligation Authority	0.622	1.307	-	-	-
ANG	Quantity	-	167	-	-	-
	Total Obligation Authority	-	3.346	-	-	-
AR	Quantity	-	29	-	-	-
	Total Obligation Authority	-	0.579	-	-	-
Total: Secondary Distribution	**Quantity**	**34**	**254**	**-**	**-**	**-**
	Total Obligation Authority	**0.622**	**5.232**	**-**	**-**	**-**

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2022 Army		Date: May 2021
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		2019	I. B. Milwaukee / West Allis, WI 53214	SS / FFP	TACOM, Warren, MI	Mar 2019	Jun 2019	17	18.000	Y		Jul 2016
VSECK TYPE II		2020	I. B. Milwaukee / West Allis, WI 53214	SS / FFP	TACOM, Warren, MI	Jan 2020	May 2020	34	18.293	Y		Jul 2016
VSECK TYPE II		2021	I. B. Milwaukee / West Allis, WI 53214	SS / FFP	TACOM, Warren, MI	Mar 2021	Jul 2021	254	18.748	Y		Jul 2016

Exhibit P-5, Cost Analysis: PB 2022 Army		Date: May 2021
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 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Procurement Quantity *(Units in Each)*	34	41	146	-	-	-
Gross/Weapon System Cost *($ in Millions)*	0.626	0.428	1.919	-	-	-
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	0.626	0.428	1.919	-	-	-
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**0.626**	**0.428**	**1.919**	**-**	**-**	**-**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)						
Initial Spares *($ in Millions)*	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Thousands)*	18.412	10.439	13.144	-	-	-

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

Cost Elements	Prior Years			FY 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 Total		
	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	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	-	-	-	-	-	0.064	-	-	-	-	-	-	-	-	-
Quality Assurance	-	-	0.006	-	-	-	-	-	0.005	-	-	-	-	-	-	-	-	-
Engineering	-	-	0.007	-	-	-	-	-	0.026	-	-	-	-	-	-	-	-	-
Log Support	-	-	-	-	-	-	-	-	0.046	-	-	-	-	-	-	-	-	-
TPF	-	-	0.026	-	-	-	-	-	0.072	-	-	-	-	-	-	-	-	-
Transportation	-	-	0.015	-	-	-	-	-	0.191	-	-	-	-	-	-	-	-	-
Subtotal: Recurring Cost	-	-	*0.072*	-	-	-	-	-	*0.404*	-	-	-	-	-	-	-	-	-
Subtotal: Flyaway Cost	**-**	**-**	***0.072***	**-**	**-**	**-**	**-**	**-**	***0.404***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Hardware Cost																		
Recurring Cost																		
VSECK Type I(†)	9.725	57	0.554	10.439	41	0.428	10.376	146	1.515	-	-	-	-	-	-	-	-	-
Subtotal: Recurring Cost	-	-	*0.554*	-	-	*0.428*	-	-	*1.515*	-	-	-	-	-	-	-	-	-
Subtotal: Hardware Cost	**-**	**-**	***0.554***	**-**	**-**	***0.428***	**-**	**-**	***1.515***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Gross/Weapon System Cost	**18.412**	**34**	**0.626**	**10.439**	**41**	**0.428**	**13.144**	**146**	**1.919**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**

Remarks:
FY21 P40 Secondary Distribution reflect erroneous COMPO breakout. All Type I Kits will go to COMPO 3.

FY20 P5 Support costs were funded with TYPE VI funding.

Exhibit P-5, Cost Analysis: PB 2022 Army		Date: May 2021
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:**	

Prior year P40 Resource Summary and Secondary Distribution reflect erroneous quantities. Quantities should reflect 57.

Secondary Distribution		FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Army	Quantity	27	34	-	-	-
	Total Obligation Authority	0.282	0.374	-	-	-
AR	Quantity	14	112	-	-	-
	Total Obligation Authority	0.146	1.545	-	-	-
Total: Secondary Distribution	**Quantity**	**41**	**146**	**-**	**-**	**-**
	Total Obligation Authority	**0.428**	**1.919**	**-**	**-**	**-**

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2022 Army		Date: May 2021
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		2019	I. B. Milwaukee / West Allis, WI 53214	SS / FFP	TACOM, Warren, MI	Mar 2019	Jun 2019	18	10.000	Y		Jul 2016
VSECK Type I		2020	I. B. Milwaukee / West Allis, WI 53214	SS / FFP	TACOM, Warren, MI	Jan 2020	May 2020	41	10.439	Y		Jul 2016
VSECK Type I		2021	I. B. Milwaukee / West Allis, WI 53214	SS / FFP	TACOM, Warren, MI	Mar 2021	Jul 2021	146	10.376	Y		Jul 2016

Exhibit P-5, Cost Analysis: PB 2022 Army		Date: May 2021
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]:** R70211 / POWER UTILITY KITS
ID Code (A=Service Ready, B=Not Service Ready) :	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Procurement Quantity *(Units in Each)*	-	-	-	7	-	7
Gross/Weapon System Cost *($ in Millions)*	-	-	-	8.212	-	8.212
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	-	-	-	8.212	-	8.212
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**-**	**-**	**-**	**8.212**	**-**	**8.212**
(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)*	-	-	-	1,173.143	-	1,173.143

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

Cost Elements	Prior Years			FY 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 Total		
	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)
Flyaway Cost																		
Recurring Cost																		
Program Support	-	-	-	-	-	-	-	-	-	-	-	0.729	-	-	-	-	-	0.729
Engineering Support	-	-	-	-	-	-	-	-	-	-	-	0.055	-	-	-	-	-	0.055
Quality Assurance Support	-	-	-	-	-	-	-	-	-	-	-	0.069	-	-	-	-	-	0.069
Total Packing Fielding Support	-	-	-	-	-	-	-	-	-	-	-	0.362	-	-	-	-	-	0.362
Logistician Support	-	-	-	-	-	-	-	-	-	-	-	0.203	-	-	-	-	-	0.203
First Destination Travel	-	-	-	-	-	-	-	-	-	-	-	0.030	-	-	-	-	-	0.030
Subtotal: Recurring Cost	-	-	-	-	-	-	-	-	-	-	-	*1.448*	-	-	-	-	-	*1.448*
Subtotal: Flyaway Cost	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***1.448***	**-**	**-**	**-**	**-**	**-**	***1.448***
Hardware Cost																		
Recurring Cost																		
Hardware(†)	-	-	-	-	-	-	-	-	-	966.286	7	6.764	-	-	-	966.286	7	6.764
Subtotal: Recurring Cost	-	-	-	-	-	-	-	-	-	-	-	*6.764*	-	-	-	-	-	*6.764*
Subtotal: Hardware Cost	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***6.764***	**-**	**-**	**-**	**-**	**-**	***6.764***
Gross/Weapon System Cost	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**1,173.143**	**7**	**8.212**	**-**	**-**	**-**	**1,173.143**	**7**	**8.212**

Remarks:
FY22 resources for the Family of Power Utility Kit program (FoPUK) is a transfer to the Family of Engineering Combat and Construction Sets Portfolio. Note that the prior year funding and exhibits can be found under ML5301 (ML5325) Items Less Than $5M Engineering Support Portfolio.

Exhibit P-5, Cost Analysis: PB 2022 Army		Date: May 2021
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]:** R70211 / POWER UTILITY KITS
ID Code (A=Service Ready, B=Not Service Ready) :	**MDAP/MAIS Code:**	

FY22 Program Management and Support Costs have increased from FY21 because FY22 funding will support FY22 and FY23 Program Management and System Support Costs which encompasses Engineering, Logistics, Quality Assurance, Total Package Fielding, and Travel.

Secondary Distribution		FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Army	Quantity	-	-	7	-	7
	Total Obligation Authority	-	-	8.212	-	8.212
Total: Secondary Distribution	**Quantity**	**-**	**-**	**7**	**-**	**7**
	Total Obligation Authority	**-**	**-**	**8.212**	**-**	**8.212**

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2022 Army		Date: May 2021
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]: R70211 / POWER UTILITY KITS

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(†)		2022	TYAD / TYAD	C / TBD	TACOM, Warren, MI	Jan 2022	Jul 2022	7	966.286	N		

(†) indicates the presence of a P-21

Exhibit P-21, Production Schedule: PB 2022 Army		**Date:** May 2021
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]:** R70211 / POWER UTILITY KITS

Cost Elements (Units in Each)							Fiscal Year 2022												Fiscal Year 2023												BALANCE
										Calendar Year 2022												Calendar Year 2023									
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2021	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																															
	1	2022	ARMY	7	0	7				A -	-	-	-	-	-	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 2022 Army		Date: May 2021
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]:** R70211 / POWER UTILITY KITS

MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Month)			Procurement Leadtime (Months)							
					Initial				Reorder			
		MSR For 2022	1-8-5 For 2022	MAX For 2022	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	TYAD - TYAD	1	3	5	4	4	6	10	4	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 2022 Army	Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 25: Combat Service Support Equipment	**P-1 Line Item Number / Title:** 9530ML5301 / Items Less Than $5M (Eng Spt)

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

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026	To Complete	Total
Procurement Quantity *(Units in Each)*	-	334	5	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	222.651	4.128	8.014	-	-	-	-	-	-	-	-	-
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	222.651	4.128	8.014	-	-	-	-	-	-	-	-	-
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**222.651**	**4.128**	**8.014**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
(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)*	-	12.359	1,602.800	-	-	-	-	-	-	-	-	-

Description:

Family of Power Utility Kits (FoPUK) provides the necessary equipment required to perform maintenance, repair and testing of high voltage power transmission lines and medium voltage power generation, to include related distribution equipment. The FoPUK supports Gap#7 Air & Missile Defense and the indispensable nature of electrical power supports administrative, health services and logistical support operations; would all be in jeopardy without the FoPUK. The FoPUK provides a modernized materiel solution to a lineman's tool kit, personal protective equipment (PPE), a rapidly deployable maintenance shelter for medium power generation and distribution systems, and PPE test equipment. Procuring the systems with in the Family of Power Utility Kits enable Prime Power Soldiers to safely and effectively construct, operate and maintain medium voltage electrical generation and distribution systems.

FoPUK Estimated Army Procurement Objective (APO): Modernized - Lineman's Tool Kit(M-LTK) 78; Electrical Personal Protective Equipment(E-PPE) 253; Service Kit Power Plant(SKPP) 22; Electrical Personal Protective Equipment Test Equipment(E-PPE-TE) 1.

A baby under Family of Engineering Combat and Construction Sets (ECACS) will be created to capture Family of Power Utility Kit(FOPUK) because FOPUK can no longer be procured under Items Less than $5M line.

Secondary Distribution		FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026
Army	Quantity	334	5	-	-	-	-	-	-	-
	Total Obligation Authority	4.128	8.014	-	-	-	-	-	-	-
Total: Secondary Distribution	**Quantity**	**334**	**5**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
	Total Obligation Authority	**4.128**	**8.014**	**-**	**-**	**-**	**-**	**-**	**-**	**-**

Justification:
ML5301 has no FY2022 funding request.

Exhibit P-40, Budget Line Item Justification: PB 2022 Army		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 25: Combat Service Support Equipment	**P-1 Line Item Number / Title:** 9530ML5301 / Items Less Than $5M (Eng Spt)	
ID Code (A=Service Ready, B=Not Service Ready): A	**Program Elements for Code B Items:** N/A	**Other Related Program Elements:** N/A
Line Item MDAP/MAIS Code: N/A		

Starting in FY22 the Family of Power Utility Kits (FoPUK) (R72011)is a baby under the Engineer Combat and Construction Systems(ECACS) program(R70001).

This program supports the procurement Service Kit Power Plants (SKPPs). The procurement of these items will provide the capability improvements over Legacy systems by modernizing, standardizing, consolidating. Modernization of obsolete equipment ensures Soldier safety, reduce tool maintenance by providing industry standard equipment, logistics' footprint and reduce redundancies. It will also improve Soldier mobility to safely perform contingency power operations and provide containerization for deployment or storage/security of items in kit.

The FoPUK supports Gap #7 Air & Missile Defense and the indispensable nature of electrical power supports administrative, health services and logistical support operations; would all be in jeopardy without the FoPUK.

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

Exhibit P-40, Budget Line Item Justification: PB 2022 Army	Date: May 2021
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 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026	To Complete	Total
Procurement Quantity *(Units in Each)*	4	-	-	6	-	6	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	148.229	-	-	0.744	-	0.744	-	-	-	-	-	-
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	148.229	-	-	0.744	-	0.744	-	-	-	-	-	-
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**148.229**	**-**	**-**	**0.744**	**-**	**0.744**	**-**	**-**	**-**	**-**	**-**	**-**
(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)*	37,057.250	-	-	124.000	-	124.000	-	-	-	-	-	-

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.

Current Procurement:

FY22 funding is for the Petroleum Expeditionary Analysis Kit (PEAK). The PEAK is a self-contained fuel kit that evaluates the quality of kerosene-based and diesel fuels used in aircraft and ground systems. It is a stand-alone system that will rapidly verify petroleum products suitability for use, prior to issue at point of consumption. The PEAK provides go/no-go fuel quality status in minutes and will enable fuel-handlers to test key fuel characteristics before refueling military equipment. The system verifies the fuel type, fuel grades, and measures levels of the required additives, as well as possible contaminants. The PEAK prevents equipment failure through fuel quality surveillance. It increases the efficiency of fuel management, reducing by days the turn-around time necessary for fuel testing at centralized petroleum laboratories. The PEAK enhances the Petroleum and Water Quartermaster (QM) War Fighting Capabilities and will be used in Armored, Infantry and Stryker Brigade Combat Teams, Composite Supply Companies, and Sustainment Companies. The PEAK is classified as a Class VII system and will replace the Class IX Aviation Fuel Contamination Test Kit.

The Army Acquisition Objective for PEAK is 1021 systems.

PEAK R67500 is a new start in FY2022

Prior Years Procurement:

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

Exhibit P-40, Budget Line Item Justification: PB 2022 Army		Date: May 2021
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		

at Rock Island Arsenal. 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.

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

Secondary Distribution		FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026
Army	Quantity	-	-	3	-	3	-	-	-	-
	Total Obligation Authority	-	-	0.372	-	0.372	-	-	-	-
ANG	Quantity	-	-	2	-	2	-	-	-	-
	Total Obligation Authority	-	-	0.248	-	0.248	-	-	-	-
AR	Quantity	-	-	1	-	1	-	-	-	-
	Total Obligation Authority	-	-	0.124	-	0.124	-	-	-	-
Total: Secondary Distribution	**Quantity**	**-**	**-**	**6**	**-**	**6**	**-**	**-**	**-**	**-**
	Total Obligation Authority	**-**	**-**	**0.744**	**-**	**0.744**	**-**	**-**	**-**	**-**

Justification:
FY22 $0.744M purchases 6ea Petroleum Expeditionary Analysis Kit (PEAK) LRIP systems. PEAK enhances the Petroleum and Water Quartermaster (QM) War Fighting Capabilities and will be used in Armored, Infantry and Stryker Brigade Combat Teams, Composite Supply Companies, and Sustainment Companies".

PEAK R67500 is a new start in FY2022

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.

QUALITY SURVEILLANCE EQUIPMENT is a new start in FY 2022.

Exhibit P-40, Budget Line Item Justification: PB 2022 Army	Date: May 2021
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:** 0604804A

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026	To Complete	Total
Procurement Quantity *(Units in Each)*	685	761	651	782	-	782	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	1,046.128	84.527	76.722	72.296	-	72.296	-	-	-	-	-	-
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	1,046.128	84.527	76.722	72.296	-	72.296	-	-	-	-	-	-
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**1,046.128**	**84.527**	**76.722**	**72.296**	**-**	**72.296**	**-**	**-**	**-**	**-**	**-**	**-**
(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)*	1,527.194	111.074	117.853	92.450	-	92.450	-	-	-	-	-	-

Description:

The Family of Petroleum and Water Distribution Systems supports the Army's mission and modernization efforts to supply bulk fuel and water during Multi-Domain Operations (MDO) to all Department of Defense (DoD) forces deployed globally. These systems support various Cross Function Teams (CFTs): Long Range Precision Fires (LRPF), Next Generation Combat Vehicles (NGCV), Air and Missile Defense (AMD), and Future Vertical Lift (FVL). Distribution systems consist of hoses, pumps, tanks, filter separators, fittings, couplings, and nozzles.

The Water Storage and Distribution System (WSDS) is a 100,000 gallon potable water storage system consisting of various configurations with a self-contained engine driven pumping system with automatic water chlorination that receives, stores, and dispenses potable water. The WSDS is a transportable set that utilizes quick disconnect couplings for rapid setup and take down. The set consists of the hypo-chlorination unit, 350 GPM pump, collapsible water tanks, triple container, and no special tools. Army Acquisition Objective (AAO): 114

The Modular Fuel System (MFS) Tank Rack Module (TRM) is a 2,500 gallon mobile storage and distribution platform. It is configured in a 20 foot International Organization for Standardization (ISO) frame with integrated bale bar and is Heavy Expanded Mobility Tactical Truck-Load Handling System (HEMTT-LHS), Palletized Load Handling System (PLS) and PLS Trailer transportable. The MFS-TRM has a Stand-Alone Retail Capability (S-ARC) with its integrated continuous use electric pump, filter separator and flow meter. It can be operated while truck or trailer mounted or on the ground. The MFS-TRM can also be coupled with the HEMTT Tanker to form a highly mobile 5,000 gallon distribution platform within Brigade Combat Teams. The MFS provides the ability to rapidly establish a fuel distribution and storage capability at any location regardless of the availability of construction equipment or material handling equipment. The AAO is 3,944 TRMs.

The Modular Fuel System (MFS) Pump Rack Module (PRM) is fuel pumping capability for use with TRM or Collapsible Fabric Storage Tanks to create a bulk fuel storage and distribution system. The MFS-PRM is configured in a 20 foot ISO frame with integrated bale bar and is HEMTT-LHS, PLS and PLS Trailer Transportable. It has a 600 gallon per minute pump, filter separator, and on board storage with sufficient hoses, fittings and nozzles for eight bulk or retail refueling points. The MFS-PRM and MFS-TRM provide the ability to rapidly establish a fuel distribution and storage capability at any location regardless of the availability of construction equipment or material handling equipment. The AAO is 34 PRMs.

The Early Entry Fluid Distribution System (E2FDS) is a highly automated flexible conduit system that complements the Inland Petroleum Distribution System (IPDS) by providing up to 50 miles of early entry capability for petroleum and water throughput. It can throughput 850,000 gallons of petroleum or 650,000 gallons of non-potable water per day and is able to emplace/retrieve conduit at a rate of 25/10 miles per day respectively. The E2FDS consists of five major modules: automated pump stations, Employment and Retrieval System (ERS), 50 miles of flexible conduit and conduit support equipment, command and control, and a trace planning tool. The components of the E2FDS will be packaged in ISO (nine high stackable) 20-foot equivalent units (TEU) for deployment and are transportable via HEMTT-LHS, PLS and PLS Trailer. During the early phases of operations, the E2FDS reduces the requirement for line-haul petroleum semitrailers and relieves main supply route congestion. The E2FDS enables rapid setup of the

Exhibit P-40, Budget Line Item Justification: PB 2022 Army		Date: May 2021
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:** 0604804A
Line Item MDAP/MAIS Code: N/A		

conduit trace, and the automation and centralized control enable greater precision of pipeline operations with fewer personnel. Once the IPDS pipeline is emplaced, the E2FDS can be used to extend the pipeline trace or be moved to another location. The AAO is 13 five-mile sets.

The Mobile Tactical Retail Refueling System (MTRRS) is a 900 gallon capacity fuel tank, 17 gallons per minute electric fuel motor/pump, a filter separator, and a flow meter. MTRRS allows for different configurations and transport platforms including cargo trucks, trailers, and Load Handling System flat-racks. The system can be removed from transport platform and operated on the ground. The MTRRS will replace the aging Tank Pump Unit (TPU) and Tank Unit Liquid Dispensing (TULD) systems. The AAO is 2,972.

The Load Handling System (LHS) Compatible Water Tank Rack System (Hippo) is a 2,000 gallon potable water tank mounted in an ISO frame. It is outfitted with a water pump, hose reel, and filling station. It is used for bulk load and discharge, retail distribution, and bulk storage of potable water. The prime mover is HEMTT-LHS, and PLS. HIPPOs will replace the 3k Semi-trailer Mounted Fabric Tank (SMFT) and most Forward Area Water Point Supply systems (FAWPSS). The AAO is 3,094.

The Fuel System Supply Point (FSSP) is a family of systems which consists of three storage capacities: 120K, 300K, and 800K gallon systems. This system is a bulk fuel receiving, issuing, and storing facility consisting of a 600 Gallons per Minute (GPM) pump, 350 GPM pump, 350 GPM filter separator and collapsible fabric storage tanks. The tanks vary in size from 20,000 gallons to 210,000 gallons. The 120K FSSP has 6 ea 20K fuel bags and 2 ea 350 GPM pumps. The 300K FSSP has 6 ea 50K fuel bags and 2 ea 350 GPM Pumps. The 800K FSSP has 4 ea 210K fuel bags and 2 ea 600 GPM pumps. The AAO: FSSP 120K is 198 systems, FSSP 300K is 237 systems, and FSSP 800K is 58 systems.

The Unit Water Pod System (Camel II) is an 800 gallon hard wall stainless steel water tank mounted on a 5-Ton trailer. It includes retail dispensing hardware comprised of the hoses and fittings necessary to gravity dispense water. The Camel II also includes integrated freeze protection that can be powered by external sources. The Camel II will partially replace the M149 and M1112 (400 gallon) potable water trailers within Field Feeding Units with Containerized Kitchens (CKs). The increase from 400-gallons to 800-gallons in capacity will decrease the frequency of water refill requirements by reducing the number of resupplies required per day. The Camel II will provide a CK with a greater capacity for carrying one full day of supply (DOS) of potable water required, approximately 1.92 gallons/person/day (gpd), for field feeding (two Unitized Group Rations [UGRs] and one Meal, Ready to Eat [MRE] per day). Current and emerging doctrine dictates the need for a combat enabler that increases unit level storage and DOS capabilities on the battlefield. Camel II will interface with the FMTV 5-ton Truck as the prime mover and is operationally compatible with existing and future water purification, transport, and distribution systems. The design of Camel II Increment One includes an allowance for the space and weight necessary for the add-on capability of Increment Two, which includes a modular unit capable of water chilling, circulation, pumping (self-load/unload), and power generation. The AAO is 572.

The Water Bison replaces the aging Water Buffalo and provides a full days supply of bulk potable water to Army units. The Water Bison consists of a 500 gallon (gal) baffled capacity tank The Bison Lite consists of a 250 gal baffled capacity tank, both Water Bison and Water Bison Lite are mounted on a trailer and include integrated freeze prevention. The Bison AAO is 10,055 and Bison Lite AAO is 686.

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 supports Brigade Combat Teams (BCTs), Field Artillery Brigades, Maneuver Enhancement Brigades (MEBs), and other formations that must utilize these essential capabilities during MDO. 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 support MDO by providing highly mobile and self-sustaining equipment during Large-Scale Combat Operations (LSCO). The ability to rapidly, efficiently, and safely distribute fuel and water on the battlefield is a critical combat enabler. Funding supports a balanced investment strategy for the Army's approved force structure and Regionally Aligned Readiness and Modernization Model (ReARMM) requirements to support Active, National Guard, and Reserve Components.

Secondary Distribution		FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026
Army	Quantity	406	497	194	-	194	-	-	-	-
	Total Obligation Authority	55.850	63.760	27.464	-	27.464	-	-	-	-
ANG	Quantity	312	85	484	-	484	-	-	-	-
	Total Obligation Authority	25.363	5.575	36.551	-	36.551	-	-	-	-

Exhibit P-40, Budget Line Item Justification: PB 2022 Army			Date: May 2021
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:** 0604804A	
Line Item MDAP/MAIS Code: N/A			

Secondary Distribution		FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026
AR	Quantity	43	69	104	-	104	-	-	-	-
	Total Obligation Authority	3.314	7.387	8.281	-	8.281	-	-	-	-
Total: Secondary Distribution	**Quantity**	**761**	**651**	**782**	**-**	**782**	**-**	**-**	**-**	**-**
	Total Obligation Authority	**84.527**	**76.722**	**72.296**	**-**	**72.296**	**-**	**-**	**-**	**-**

Exhibit P-40, Budget Line Item Justification: PB 2022 Army	Date: May 2021
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: 0604804A

Line Item MDAP/MAIS Code: N/A

Exhibits Schedule					Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/ MAIS Code	Quantity / Total Cost (Each) I ($ M)	Quantity / Total Cost (Each) I ($ M)	Quantity / Total Cost (Each) I ($ M)	Quantity / Total Cost (Each) I ($ M)	Quantity / Total Cost (Each) I ($ M)	Quantity / Total Cost (Each) I ($ M)
P-5	M13300 / WATER STOR/DIST SET, 1,000,000 GAL	P-5a	B		- / 4.686	- / -	6 / 2.997	- / 0.457	- / -	- / 0.457
P-5	M60300 / FUEL SYSTEM SUPPLY POINT		A		2 / 379.159	- / 5.515	- / -	- / 0.457	- / -	- / 0.457
P-5	R02600 / Modular Fuel System (MFS)	P-5a, P-21	A		505 / 266.381	654 / 54.464	464 / 38.462	500 / 39.050	- / -	500 / 39.050
P-5	R02690 / EARLY ENTRY FLUID DISTRIBUTION SYSTEM (E2FDS)	P-5a, P-21	B		- / 0.635	2 / 4.341	3 / 18.771	6 / 13.763	- / -	6 / 13.763
P-5	R38000 / Mobile Tactical Refueling System	P-5a, P-21	B		- / 7.318	105 / 7.541	148 / 8.358	152 / 8.598	- / -	152 / 8.598
P-5	R38100 / HIPPO WATER DISTRIBUTION SYSTEM	P-5a	A		178 / 294.954	0 / 12.666	30 / 8.134	37 / 5.050	- / -	37 / 5.050
P-5	R38101 / Unit Water Pod System	P-5a	A		- / 92.995	- / -	- / -	87 / 4.921	- / -	87 / 4.921
P-40	**Total Gross/Weapon System Cost**				**685 / 1,046.128**	**761 / 84.527**	**651 / 76.722**	**782 / 72.296**	**- / -**	**782 / 72.296**

*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 2022 Base procurement dollars in the amount of $72.296 million supports the procurement of:

Program support for Water Storage Distribution Sets (WSDS) - M13300
Fielding for Fuel System Supply Point (FSSP) - M60300
500ea Modular Fuel System (MFS) Tank Rack Module (TRM) - R02600
6ea Early Entry Fluid Distribution System (E2FDS) - R02690
152ea Mobile Tactical Retail Refueling System (MTRRS) - R38000
37ea Load Handling System (LHS) Compatible Water Tank Racks System (Hippo) - R38100
87ea Unit Water Trailer (Water Bison) - R38101

R38101 Water Bison is a new start program in FY2022

This funding also supports engineering changes, system engineering/program management costs, system test & evaluation, training, logistics products, support equipment and fielding for all systems procured with FY2022 base procurement.

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 to support Multi-Domain Operations (MDO) for Active, National Guard, and Reserve Components.

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

Exhibit P-5, Cost Analysis: PB 2022 Army		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 30	**P-1 Line Item Number / Title:** 4700MA6000 / Distribution Systems, Petroleum & Water	**Item Number / Title [DODIC]:** M13300 / WATER STOR/DIST SET, 1,000,000 GAL
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Procurement Quantity *(Units in Each)*	-	-	6	-	-	-
Gross/Weapon System Cost *($ in Millions)*	4.686	-	2.997	0.457	-	0.457
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	4.686	-	2.997	0.457	-	0.457
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**4.686**	**-**	**2.997**	**0.457**	**-**	**0.457**
(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)*	-	-	499.500	-	-	-

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

Cost Elements	Prior Years			FY 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 Total		
	Unit Cost *($ K)*	Qty *(Each)*	Total Cost *($ M)*	Unit Cost *($ K)*	Qty *(Each)*	Total Cost *($ M)*	Unit Cost *($ K)*	Qty *(Each)*	Total Cost *($ M)*	Unit Cost *($ K)*	Qty *(Each)*	Total Cost *($ M)*	Unit Cost *($ K)*	Qty *(Each)*	Total Cost *($ M)*	Unit Cost *($ K)*	Qty *(Each)*	Total Cost *($ M)*
Flyaway Cost																		
Recurring Cost																		
Water Stor/Dist Set - Hardware(†)	-	-	-	-	-	-	246.000	6	1.476	-	-	-	-	-	-	-	-	-
Water Stor/Dist Set - Hardware - Split OPS Kit (32 of 114)	-	-	-	-	-	-	97.000	3	0.291	-	-	-	-	-	-	-	-	-
Water Stor/Dist Set - BII / ASL / Special Tools	-	-	-	-	-	-	1.500	6	0.009	-	-	-	-	-	-	-	-	-
Data - Tech Manual / Interactive Media	-	-	-	-	-	-	-	-	0.830	-	-	-	-	-	-	-	-	-
System Test & Evaluation, Maint. Demo	-	-	-	-	-	-	-	-	-	-	-	0.150	-	-	-	-	-	0.150
System Engineering/ Program Management	-	-	-	-	-	-	-	-	0.163	-	-	0.307	-	-	-	-	-	0.307
Fielding	-	-	-	-	-	-	-	-	0.228	-	-	-	-	-	-	-	-	-
Subtotal: Recurring Cost	-	-	-	-	-	-	-	-	*2.997*	-	-	*0.457*	-	-	-	-	-	*0.457*
Non Recurring Cost																		
Prior Years - Non WSDS Costs	-	-	4.686	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Non Recurring Cost	-	-	*4.686*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Exhibit P-5, Cost Analysis: PB 2022 Army		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 30	**P-1 Line Item Number / Title:** 4700MA6000 / Distribution Systems, Petroleum & Water	**Item Number / Title [DODIC]:** M13300 / WATER STOR/DIST SET, 1,000,000 GAL
ID Code (A=Service Ready, B=Not Service Ready) : B	**MDAP/MAIS Code:**	

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

Cost Elements	Prior Years			FY 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 Total		
	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	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: Flyaway Cost	-	-	***4.686***	-	-	-	-	-	***2.997***	-	-	***0.457***	-	-	-	-	-	***0.457***
Gross/Weapon System Cost	-	-	**4.686**	-	-	-	**499.500**	**6**	**2.997**	-	-	**0.457**	-	-	-	-	-	**0.457**

Remarks:

FY22 funding will be used to bridge program between production years due to delayed testing. Total cost of $0.457 million for logistics requirements, system test support and PM support costs.

WSDS is a new start program for FY21 and will continue to increase production until Full Rate Production is archived in FY23

Secondary Distribution		FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Army	Quantity	-	6	-	-	-
	Total Obligation Authority	-	2.997	0.457	-	0.457
Total: Secondary Distribution	**Quantity**	-	**6**	-	-	-
	Total Obligation Authority	-	**2.997**	**0.457**	-	**0.457**

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2022 Army		**Date:** May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 30	**P-1 Line Item Number / Title:** 4700MA6000 / Distribution Systems, Petroleum & Water	**Item Number / Title [DODIC]:** M13300 / WATER STOR/DIST SET, 1,000,000 GAL

Cost Elements	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 Stor/Dist Set - Hardware		2021	TBD / TBD	C / FFP	TACOM	Jul 2021	Dec 2022	6	246.000	N		

Remarks:
No production for FY22

Exhibit P-5, Cost Analysis: PB 2022 Army		Date: May 2021
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 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Procurement Quantity *(Units in Each)*	2	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	379.159	5.515	-	0.457	-	0.457
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	379.159	5.515	-	0.457	-	0.457
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**379.159**	**5.515**	**-**	**0.457**	**-**	**0.457**
(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)*	189,579.500	-	-	-	-	-

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

Cost Elements	Prior Years			FY 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 Total		
	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)
Flyaway Cost																		
Recurring Cost																		
FSSP 300K	3,020.200	65	196.313	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
FSSP 120K	-	-	97.700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
FSSP 800K	-	-	66.100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
System Engineering/ Program Management	-	-	12.912	-	-	-	-	-	-	-	-	0.087	-	-	-	-	-	0.087
Fielding	-	-	6.134	-	-	-	-	-	-	-	-	0.370	-	-	-	-	-	0.370
Subtotal: Recurring Cost	-	-	*379.159*	-	-	-	-	-	-	-	-	*0.457*	-	-	-	-	-	*0.457*
Subtotal: Flyaway Cost	**-**	**-**	***379.159***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***0.457***	**-**	**-**	**-**	**-**	**-**	***0.457***
Hardware Cost																		
Non Recurring Cost																		
BTR for Cancelled Year - Contract Closeout - MA9999	-	-	-	-	-	5.515	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Non Recurring Cost	-	-	-	-	-	*5.515*	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Hardware Cost	**-**	**-**	**-**	**-**	**-**	***5.515***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Gross/Weapon System Cost	**189,579.500**	**2**	**379.159**	**-**	**-**	**5.515**	**-**	**-**	**-**	**-**	**-**	**0.457**	**-**	**-**	**-**	**-**	**-**	**0.457**

Remarks:
FY22 funding $0.457M will be used to field and program support. Funding required to complete final system fielding/new equipment training.

Exhibit P-5, Cost Analysis: PB 2022 Army		Date: May 2021
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:**	

Secondary Distribution		FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Army	Quantity	-	-	-	-	-
	Total Obligation Authority	5.515	-	0.457	-	0.457
Total: Secondary Distribution	**Quantity**	**-**	**-**	**-**	**-**	**-**
	Total Obligation Authority	**5.515**	**-**	**0.457**	**-**	**0.457**

Exhibit P-5, Cost Analysis: PB 2022 Army		Date: May 2021
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 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Procurement Quantity *(Units in Each)*	505	654	464	500	-	500
Gross/Weapon System Cost *($ in Millions)*	266.381	54.464	38.462	39.050	-	39.050
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	266.381	54.464	38.462	39.050	-	39.050
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**266.381**	**54.464**	**38.462**	**39.050**	**-**	**39.050**
(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)*	527.487	83.278	82.892	78.100	-	78.100

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

Cost Elements	Prior Years			FY 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 Total		
	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	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																		
Modular Fuel System (MFS) Pump Rack Module (PRM) - Hardware	868.480	25	21.712	802.000	6	4.812	-	-	-	-	-	-	-	-	-	-	-	-
Tank Rack Modules(†)	62.172	2,601	161.709	71.187	648	46.129	72.929	468	34.131	74.688	500	37.344	-	-	-	74.688	500	37.344
Engineering Changes	-	-	0.450	-	-	1.000	-	-	-	-	-	-	-	-	-	-	-	-
Data	-	-	3.456	-	-	-	-	-	1.340	-	-	0.200	-	-	-	-	-	0.200
System Test & Evaluation, Production	-	-	10.152	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Training	-	-	1.459	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
System Engineering/ Program Management	-	-	31.117	-	-	1.050	-	-	0.939	-	-	0.570	-	-	-	-	-	0.570
Support Equipment	-	-	3.523	-	-	0.050	-	-	0.050	-	-	0.086	-	-	-	-	-	0.086
Fielding	-	-	32.803	-	-	1.423	-	-	1.002	-	-	0.850	-	-	-	-	-	0.850
Subtotal: Recurring Cost	-	-	*266.381*	-	-	*54.464*	-	-	*37.462*	-	-	*39.050*	-	-	-	-	-	*39.050*
Non Recurring Cost																		
Modular Fuel System (MFS) Pump Rack Module (PRM) - Test Asset Repair	-	-	-	-	-	-	-	-	0.500	-	-	-	-	-	-	-	-	-
Central NET Location Est. - Camp Dodge	-	-	-	-	-	-	-	-	0.500	-	-	-	-	-	-	-	-	-

Exhibit P-5, Cost Analysis: PB 2022 Army		Date: May 2021
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:**	

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

Cost Elements	Prior Years			FY 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 Total		
	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	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: Non Recurring Cost	-	-	-	-	-	-	-	-	*1.000*	-	-	-	-	-	-	-	-	-
Subtotal: Flyaway Cost	***-***	***-***	***266.381***	***-***	***-***	***54.464***	***-***	***-***	***38.462***	***-***	***-***	***39.050***	***-***	***-***	***-***	***-***	***-***	***39.050***
Gross/Weapon System Cost	**527.487**	**505**	**266.381**	**83.278**	**654**	**54.464**	**82.892**	**464**	**38.462**	**78.100**	**500**	**39.050**	**-**	**-**	**-**	**78.100**	**500**	**39.050**

Remarks:
FY22 $39.050M will be used purchase and field 500 Modular Fuel System (MFS) Tank Rack Modules (TRM).

Secondary Distribution		FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Army	Quantity	346	422	100	-	100
	Total Obligation Authority	29.565	35.396	7.810	-	7.810
ANG	Quantity	282	40	400	-	400
	Total Obligation Authority	22.950	2.920	31.240	-	31.240
AR	Quantity	26	2	-	-	-
	Total Obligation Authority	1.949	0.146	-	-	-
Total: Secondary Distribution	**Quantity**	**654**	**464**	**500**	**-**	**500**
	Total Obligation Authority	**54.464**	**38.462**	**39.050**	**-**	**39.050**

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2022 Army		Date: May 2021
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
Tank Rack Modules(†)		2020	ISOMETRICS - TRM / Reidsville, NC	C / FFP	TACOM	Mar 2020	Oct 2020	648	71.187	N		
Tank Rack Modules(†)		2021	ISOMETRICS - TRM / Reidsville, NC	C / FFP	TACOM	Mar 2021	Oct 2021	468	72.929	N		
Tank Rack Modules(†)		2022	ISOMETRICS - TRM / Reidsville, NC	C / FFP	TACOM	Mar 2022	Oct 2022	500	74.688	N		

(†) indicates the presence of a P-21

Exhibit P-21, Production Schedule: PB 2022 Army		**Date:** May 2021
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									
COO	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: 2601																															
	1	2020	ARMY	648	0	648						A -	-	-	-	-	-	-	18	30	60	60	60	60	60	60	60	60	60	60	0
	1	2021	ARMY	468	0	468																		A -	-	-	-	-	-	-	468
	1	2022	ARMY	500	0	500																									500
							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 2022 Army		Date: May 2021
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 2022												Fiscal Year 2023												BALANCE
							Calendar Year 2022												Calendar Year 2023												
COO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2021	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: 2601																															
	1	2020	ARMY	648	648	0																									0
	1	2021	ARMY	468	0	468	39	39	39	39	39	39	39	39	39	39	39	39													0
	1	2022	ARMY	500	0	500						A -	-	-	-	-	-	-	41	41	42	42	42	42	42	42	42	42	41	41	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 2022 Army		Date: May 2021
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 2022	1-8-5 For 2022	MAX For 2022	ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1	ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1
1	ISOMETRICS - TRM - Reidsville, NC	15	32	54	0	4	6	10	0	1	7	8

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

Exhibit P-5, Cost Analysis: PB 2022 Army		Date: May 2021
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 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Procurement Quantity *(Units in Each)*	-	2	3	6	-	6
Gross/Weapon System Cost *($ in Millions)*	0.635	4.341	18.771	13.763	-	13.763
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	0.635	4.341	18.771	13.763	-	13.763
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**0.635**	**4.341**	**18.771**	**13.763**	**-**	**13.763**
(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)*	-	2,170.500	6,257.000	2,293.833	-	2,293.833

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

Cost Elements	Prior Years			FY 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 Total		
	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	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 Hardware(†)	-	-	-	2,000.000	2	4.000	2,012.500	4	8.050	2,039.167	6	12.235	-	-	-	2,039.167	6	12.235
E2FDS System Overhead Award / CDRL Development	-	-	-	-	-	-	-	-	2.951	-	-	-	-	-	-	-	-	-
E2FDS Test Assets / Spares / Hardware Kits / Test FSR Spt	-	-	0.160	-	-	-	-	-	3.060	-	-	-	-	-	-	-	-	-
Tech Manual Development	-	-	-	-	-	-	-	-	2.100	-	-	-	-	-	-	-	-	-
Interactive Media Training - IMI	-	-	-	-	-	-	-	-	1.800	-	-	-	-	-	-	-	-	-
Fielding	-	-	-	-	-	0.025	-	-	0.398	-	-	0.452	-	-	-	-	-	0.452
System engineering/ Program management	-	-	0.475	-	-	0.291	-	-	0.337	-	-	0.353	-	-	-	-	-	0.353
First Destination Transportation	-	-	-	-	-	0.025	-	-	0.075	-	-	0.123	-	-	-	-	-	0.123
Subtotal: Recurring Cost	-	-	*0.635*	-	-	*4.341*	-	-	*18.771*	-	-	*13.163*	-	-	-	-	-	*13.163*
Non Recurring Cost																		
E2FDS Test Asset Refurbishment	-	-	-	-	-	-	-	-	-	-	-	0.600	-	-	-	-	-	0.600

Exhibit P-5, Cost Analysis: PB 2022 Army		Date: May 2021
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:**	

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

Cost Elements	Prior Years			FY 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 Total		
	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	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: Non Recurring Cost	-	-	-	-	-	-	-	-	-	-	-	*0.600*	-	-	-	-	-	*0.600*
Subtotal: Flyaway Cost	**-**	**-**	***0.635***	**-**	**-**	***4.341***	**-**	**-**	***18.771***	**-**	**-**	***13.763***	**-**	**-**	**-**	**-**	**-**	***13.763***
Gross/Weapon System Cost	**-**	**-**	**0.635**	**2,170.500**	**2**	**4.341**	**6,257.000**	**3**	**18.771**	**2,293.833**	**6**	**13.763**	**-**	**-**	**-**	**2,293.833**	**6**	**13.763**

Remarks:
FY22 $13.763M produces 6 E2FDS systems with test asset refurbishment, PdM support and fielding/new equipment training.

Secondary Distribution		FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Army	Quantity	2	3	6	-	6
	Total Obligation Authority	4.341	18.771	13.763	-	13.763
Total: Secondary Distribution	**Quantity**	**2**	**3**	**6**	**-**	**6**
	Total Obligation Authority	**4.341**	**18.771**	**13.763**	**-**	**13.763**

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2022 Army		Date: May 2021
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 Hardware(†)		2020	DRS / West Plains, IL	C / FFP	TACOM	Apr 2020	Oct 2020	2	2,000.000	N		
E2FDS System Hardware(†)		2021	DRS / West Plains, IL	C / FFP	TACOM	May 2021	Nov 2021	4	2,012.500	N		
E2FDS System Hardware(†)		2022	DRS / West Plains, IL	C / FFP	TACOM	May 2022	Nov 2022	6	2,039.167	N		

(†) indicates the presence of a P-21

Exhibit P-21, Production Schedule: PB 2022 Army		**Date:** May 2021
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 (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	
E2FDS System Hardware																															
	1	2020	ARMY	2	0	2							A -	-	-	-	-	-	1	-	-	1									0
	1	2021	ARMY	4	0	4																				A -	-	-	-	-	4
	1	2022	ARMY	6	0	6																									6
							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 2022 Army		**Date:** May 2021
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 (Units in Each)							Fiscal Year 2022												Fiscal Year 2023												BALANCE
										Calendar Year 2022												Calendar Year 2023									
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2021	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	
E2FDS System Hardware																															
	1	2020	ARMY	2	2	0																									0
	1	2021	ARMY	4	0	4	-	1	-	1	-	1	-	1																	0
	1	2022	ARMY	6	0	6								A -	-	-	-	-	-	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 2022 Army		**Date:** May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 30	**P-1 Line Item Number / Title:** 4700MA6000 / Distribution Systems, Petroleum & Water	**Item Number / Title [DODIC]:** R02690 / EARLY ENTRY FLUID DISTRIBUTION SYSTEM (E2FDS)

MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Month)			Procurement Leadtime (Months)							
					Initial				Reorder			
		MSR For 2022	1-8-5 For 2022	MAX For 2022	ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1	ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1
1	DRS - West Plains, IL	1	1	2	18	0	6	6	1	1	6	7

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

Exhibit P-5, Cost Analysis: PB 2022 Army		Date: May 2021
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 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Procurement Quantity *(Units in Each)*	-	105	148	152	-	152
Gross/Weapon System Cost *($ in Millions)*	7.318	7.541	8.358	8.598	-	8.598
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	7.318	7.541	8.358	8.598	-	8.598
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**7.318**	**7.541**	**8.358**	**8.598**	**-**	**8.598**
(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)*	-	71.819	56.473	56.566	-	56.566

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

Cost Elements	Prior Years			FY 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 Total		
	Unit Cost *($ K)*	Qty *(Each)*	Total Cost *($ M)*	Unit Cost *($ K)*	Qty *(Each)*	Total Cost *($ M)*	Unit Cost *($ K)*	Qty *(Each)*	Total Cost *($ M)*	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 - Hardware(†)	52.068	59	3.072	49.390	105	5.186	47.047	148	6.963	47.428	152	7.209	-	-	-	47.428	152	7.209
Mobile Tactical Refueling System - ASL/BII	-	-	-	1.133	105	0.119	1.155	148	0.171	1.178	152	0.179	-	-	-	1.178	152	0.179
Engineering Changes (ECPs)	-	-	1.961	-	-	-	-	-	0.150	-	-	-	-	-	-	-	-	-
Tech Manual - IPS	-	-	-	-	-	1.221	-	-	-	-	-	-	-	-	-	-	-	-
System Test and Evaluation	-	-	0.625	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fielding	-	-	0.025	-	-	0.374	-	-	0.432	-	-	0.552	-	-	-	-	-	0.552
System Engineering/ Program Management	-	-	1.450	-	-	0.369	-	-	0.461	-	-	0.468	-	-	-	-	-	0.468
First Destination Transportation	-	-	0.185	-	-	0.126	-	-	0.181	-	-	0.190	-	-	-	-	-	0.190
Subtotal: Recurring Cost	-	-	*7.318*	-	-	*7.395*	-	-	*8.358*	-	-	*8.598*	-	-	-	-	-	*8.598*
Subtotal: Flyaway Cost	**-**	**-**	***7.318***	**-**	**-**	***7.395***	**-**	**-**	***8.358***	**-**	**-**	***8.598***	**-**	**-**	**-**	**-**	**-**	***8.598***
Hardware Cost																		
Non Recurring Cost																		
Test Asset Refurbishment	-	-	-	-	-	0.146	-	-	-	-	-	-	-	-	-	-	-	-

Exhibit P-5, Cost Analysis: PB 2022 Army		Date: May 2021
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:**	

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

Cost Elements	Prior Years			FY 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 Total		
	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	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: Non Recurring Cost	-	-	-	-	-	*0.146*	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Hardware Cost	**-**	**-**	**-**	**-**	**-**	***0.146***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Gross/Weapon System Cost	**-**	**-**	**7.318**	**71.819**	**105**	**7.541**	**56.473**	**148**	**8.358**	**56.566**	**152**	**8.598**	**-**	**-**	**-**	**56.566**	**152**	**8.598**

Remarks:
FY22 $8.598M will also support the procurement of 152 MTRRS systems, program support, fielding/new equipment training.

Secondary Distribution		FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Army	Quantity	58	44	45	-	45
	Total Obligation Authority	3.763	2.222	2.545	-	2.545
ANG	Quantity	30	45	47	-	47
	Total Obligation Authority	2.413	2.655	2.659	-	2.659
AR	Quantity	17	59	60	-	60
	Total Obligation Authority	1.365	3.481	3.394	-	3.394
Total: Secondary Distribution	**Quantity**	**105**	**148**	**152**	**-**	**152**
	Total Obligation Authority	**7.541**	**8.358**	**8.598**	**-**	**8.598**

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2022 Army		Date: May 2021
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 - Hardware(†)		2020	Heil Trailer International, LLC / Gatesville, TX	C / FFP	Warren, MI	Mar 2020	Jul 2020	105	49.390	N		
Mobile Tactical Refueling System - Hardware(†)		2021	Heil Trailer International, LLC / Gatesville, TX	C / FFP	Warren, MI	Mar 2021	Jul 2021	148	47.047	N		
Mobile Tactical Refueling System - Hardware(†)		2022	Heil Trailer International, LLC / Gatesville, TX	C / FFP	Warren, MI	Mar 2022	Jul 2022	152	47.428	N		

(†) indicates the presence of a P-21

Exhibit P-21, Production Schedule: PB 2022 Army		**Date:** May 2021
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 (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	
Mobile Tactical Refueling System - Hardware																															
Prior Years Deliveries: 59																															
	1	2020	ARMY	105	0	105						A -	-	-	-	5	5	5	10	10	10	10	10	10	10	10	10				0
	1	2021	ARMY	148	0	148																		A -	-	-	-	12	12	12	112
	1	2022	ARMY	152	0	152																									152
							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 2022 Army		**Date:** May 2021
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 (Units in Each)							Fiscal Year 2022												Fiscal Year 2023												BALANCE
							Calendar Year 2022												Calendar Year 2023												
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2021	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	
Mobile Tactical Refueling System - Hardware																															
Prior Years Deliveries: 59																															
	1	2020	ARMY	105	105	0																									0
	1	2021	ARMY	148	36	112	12	12	12	12	12	13	13	13	13																0
	1	2022	ARMY	152	0	152						A -	-	-	-	13	13	13	13	13	12	12	12	12	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 2022 Army		**Date:** May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 30	**P-1 Line Item Number / Title:** 4700MA6000 / Distribution Systems, Petroleum & Water	**Item Number / Title [DODIC]:** R38000 / Mobile Tactical Refueling System

MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Month)			Procurement Leadtime (Months)							
					Initial				Reorder			
		MSR For 2022	1-8-5 For 2022	MAX For 2022	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	Heil Trailer International, LLC - Gatesville, TX	8	40	80	0	9	4	13	0	3	4	7

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

Exhibit P-5, Cost Analysis: PB 2022 Army		Date: May 2021
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 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Procurement Quantity *(Units in Each)*	178	0	30	37	-	37
Gross/Weapon System Cost *($ in Millions)*	294.954	12.666	8.134	5.050	-	5.050
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	294.954	12.666	8.134	5.050	-	5.050
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**294.954**	**12.666**	**8.134**	**5.050**	**-**	**5.050**
(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)*	1,657.045	-	271.133	136.486	-	136.486

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

Cost Elements	Prior Years			FY 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 Total		
	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	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(†)	116.623	1,490	173.768	-	-	-	200.000	30	6.000	113.324	37	4.193	-	-	-	113.324	37	4.193
HIPPO ASL/BII/ Special Tools	-	-	-	-	-	-	0.267	30	0.008	0.270	37	0.010	-	-	-	0.270	37	0.010
Training	-	-	1.550	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tech Manual Development	-	-	1.650	-	-	-	-	-	0.750	-	-	-	-	-	-	-	-	-
Log Development - IETM Conversion	-	-	13.953	-	-	-	-	-	0.533	-	-	-	-	-	-	-	-	-
System Test & Evaluation, Production	-	-	20.400	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Engineering Changes	-	-	14.450	-	-	-	-	-	0.056	-	-	-	-	-	-	-	-	-
System Engineering/ Program Management	-	-	51.393	-	-	1.159	-	-	0.385	-	-	0.417	-	-	-	-	-	0.417
Fielding	-	-	16.122	-	-	0.406	-	-	0.371	-	-	0.392	-	-	-	-	-	0.392
First Destination Transportation	-	-	1.668	-	-	0.042	-	-	0.031	-	-	0.038	-	-	-	-	-	0.038
Subtotal: Recurring Cost	-	-	*294.954*	-	-	*1.607*	-	-	*8.134*	-	-	*5.050*	-	-	-	-	-	*5.050*
Subtotal: Flyaway Cost	**-**	**-**	***294.954***	**-**	**-**	***1.607***	**-**	**-**	***8.134***	**-**	**-**	***5.050***	**-**	**-**	**-**	**-**	**-**	***5.050***
Hardware Cost																		
Non Recurring Cost																		

Exhibit P-5, Cost Analysis: PB 2022 Army		Date: May 2021
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:

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

Cost Elements	Prior Years			FY 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 Total		
	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)
ERI Funding Return - Change in Requirement	-	-	-	-	-	11.059	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Non Recurring Cost	-	-	-	-	-	*11.059*	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Hardware Cost	**-**	**-**	**-**	**-**	**-**	***11.059***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Gross/Weapon System Cost	**1,657.045**	**178**	**294.954**	**-**	**0**	**12.666**	**271.133**	**30**	**8.134**	**136.486**	**37**	**5.050**	**-**	**-**	**-**	**136.486**	**37**	**5.050**

Remarks:
FY22 $5.05M funding will also support the procurement of 37 systems, program support, fielding/net equipment training.

Secondary Distribution		FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Army	Quantity	-	22	-	-	-
	Total Obligation Authority	12.666	4.374	-	-	-
ANG	Quantity	-	-	7	-	7
	Total Obligation Authority	-	-	0.955	-	0.955
AR	Quantity	-	8	30	-	30
	Total Obligation Authority	-	3.760	4.095	-	4.095
Total: Secondary Distribution	**Quantity**	**0**	**30**	**37**	**-**	**37**
	Total Obligation Authority	**12.666**	**8.134**	**5.050**	**-**	**5.050**

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2022 Army		Date: May 2021
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		2021	TBD / TBD	C / FFP	TACOM	Nov 2020	Mar 2021	30	200.000	N		
HIPPO		2022	TBD / TBD	C / FFP	TACOM	Nov 2021	Mar 2022	37	113.324	N		

Exhibit P-5, Cost Analysis: PB 2022 Army		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 30	**P-1 Line Item Number / Title:** 4700MA6000 / Distribution Systems, Petroleum & Water	**Item Number / Title [DODIC]:** R38101 / Unit Water Pod System
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Procurement Quantity *(Units in Each)*	-	-	-	87	-	87
Gross/Weapon System Cost *($ in Millions)*	92.995	-	-	4.921	-	4.921
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	92.995	-	-	4.921	-	4.921
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**92.995**	**-**	**-**	**4.921**	**-**	**4.921**
(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)*	-	-	-	56.563	-	56.563

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

Cost Elements	Prior Years			FY 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 Total		
	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)
Flyaway Cost																		
Recurring Cost																		
Water Bison Hardware(†)	-	-	-	-	-	-	-	-	-	41.000	87	3.567	-	-	-	41.000	87	3.567
Water Bison ASL/BII	-	-	-	-	-	-	-	-	-	1.000	87	0.087	-	-	-	1.000	87	0.087
Tech Manual Update	-	-	-	-	-	-	-	-	-	-	-	0.550	-	-	-	-	-	0.550
Fielding	-	-	-	-	-	-	-	-	-	-	-	0.259	-	-	-	-	-	0.259
System Test & Evaluation, Production	-	-	-	-	-	-	-	-	-	-	-	0.405	-	-	-	-	-	0.405
First Destination Transportation	-	-	-	-	-	-	-	-	-	-	-	0.053	-	-	-	-	-	0.053
Subtotal: Recurring Cost	-	-	-	-	-	-	-	-	-	-	-	*4.921*	-	-	-	-	-	*4.921*
Non Recurring Cost																		
Prior Year Camel II Program Costs	190.564	488	92.995	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Non Recurring Cost	-	-	*92.995*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Flyaway Cost	**-**	**-**	***92.995***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***4.921***	**-**	**-**	**-**	**-**	**-**	***4.921***
Gross/Weapon System Cost	**-**	**-**	**92.995**	**-**	**-**	**-**	**-**	**-**	**-**	**56.563**	**87**	**4.921**	**-**	**-**	**-**	**56.563**	**87**	**4.921**

Remarks:
FY22 $4.921M funding is programmed for APE G16011 Water Bison on APE R38101 Unit Water Pod System (CAMEL II).

Exhibit P-5, Cost Analysis: PB 2022 Army		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 30	**P-1 Line Item Number / Title:** 4700MA6000 / Distribution Systems, Petroleum & Water	**Item Number / Title [DODIC]:** R38101 / Unit Water Pod System
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	

Funding produces 87 Bison 500g systems, program support, technical manuals, and fielding/new equipment training.

G16011 Water Bison is a new start program in FY2022

Secondary Distribution		FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Army	Quantity	-	-	43	-	43
	Total Obligation Authority	-	-	2.432	-	2.432
ANG	Quantity	-	-	30	-	30
	Total Obligation Authority	-	-	1.697	-	1.697
AR	Quantity	-	-	14	-	14
	Total Obligation Authority	-	-	0.792	-	0.792
Total: Secondary Distribution	**Quantity**	**-**	**-**	**87**	**-**	**87**
	Total Obligation Authority	**-**	**-**	**4.921**	**-**	**4.921**

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2022 Army		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 30	P-1 Line Item Number / Title: 4700MA6000 / Distribution Systems, Petroleum & Water	Item Number / Title [DODIC]: R38101 / Unit Water Pod System

Cost Elements	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 Bison Hardware		2022	TBD / TBD	TBD	McAlester, OK	Mar 2022	Mar 2023	87	41.000	Y		

Remarks:
Procurement funding is on the Unit Water Pod System APE R38101 in FY22 as a placeholder for the "New Start" program Water Bison and Water Bison Lite.

Exhibit P-40, Budget Line Item Justification: PB 2022 Army	Date: May 2021
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 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	1,003.481	147.874	75.875	122.145	-	122.145	-	-	-	-	-	-
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	1,003.481	147.874	75.875	122.145	-	122.145	-	-	-	-	-	-
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**1,003.481**	**147.874**	**75.875**	**122.145**	**-**	**122.145**	**-**	**-**	**-**	**-**	**-**	**-**
(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 Army's Combat Support Medical (CSM) program provides solutions to the Army's high risk medical capability gap of Prolonged Care in support of Large Scale Combat Operations in Joint All Domain Operations (JADO) aligned by the Army Health System (AHS) and its ten medical functional areas. Note CSM does not have equities within two of the ten functional areas: Medical Command and Control and Combat and Operational Stress Control. In order to support a JADO capable and ready Force, the Medical Enterprise must provide prolonged care in order to support warfighting operations from the strategic support area to the deep maneuver area.

CSM represents the highly diverse and complex equipping component of Army operational medical capabilities. In FY22, CSM supports 289 medical Line Item Number (LINs)--including equipment (Army Support Items of Equipment (ASIOE) and Medical Equipment Sets) for the Army. LINs are aligned to each medical functional area.

CSM promotes, improves, conserves, and maximizes mental and physical performance of Warfighters within the spectrum of military operations by fielding to operational units throughout the Army's Roles of Care and Range of Military Operations (ROMO). CSM supports technologically advanced medical/surgical capabilities, medical materiel, and nonmedical equipment required in our Combat, Combat Support, and Combat Service Support force structure.

The CSM program is divided into the AHS medical functional areas aligning with medical disciplines and scientific knowledge that are interdependent and continuously synchronized to reduce morbidity and mortality, and to maximize patient outcomes. The CSM program supports requirements within eight of the ten medical functional areas, as follows:

* Medical Treatment - Supports return-to-duty for patients who can be treated on-site, in the operating environment, or stabilization and evacuation of patients requiring definitive, recovering, and rehabilitative care in stateside hospitals or other safe haven. Examples of devices used, but not limited to providing medical treatment include patient vital signs monitors, infusion pumps, fluid warming systems, tourniquets, ultrasounds, x-ray and medical equipment sets (MES) for Holistic Health and Fitness.
* Medical Evacuation - Provides the MEDEVAC Equipment Package (MEP) which includes Forward Looking Infra-Red Sensor (FLIR), Black Hawk Advanced MEDEVAC (BAM) window, Interim MEDEVAC Mission Support System (IMMSS) Patient Handling System, and patient cabin heater. This program will transition from the UH-60A/L MEDEVAC platforms as the fleet converts to the UH-60V design. This transition requires UH-60L to UH-60V conversion kits to enhance operational standardization throughout the MEDEVAC air ambulance fleet and strengthens the fleet's ability during Multi Domain Operations. Medical Evacuation also supports medical equipment and medical sets to ground and air medical evacuation units to move casualties from point of injury, company aid posts, or casualty/patient collection points to medical treatment facilities often within hostile operational environments.

Exhibit P-40, Budget Line Item Justification: PB 2022 Army		Date: May 2021
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		

* Hospitalization - Includes procurement of the field hospital, which may include augmentation detachment modules depending on specific configuration. The modules contain equipment and supplies for patient hospitalization such as surgical lights, anesthesia machines, oxygen generation systems, CT Scanners, C-arms, and devices for surgery or medical care. Hospitalization also includes infrastructure such as fresh water and waste water distribution sets and shelters.
* Dental Services - Provides necessary dental care designed to eliminate potential dental emergencies in operational settings across the Army's multi-domain operations.
* Preventive Medical Services - Designed to prevent casualties from disease and non-battle Injuries through medical surveillance and health assessments, hygiene and sanitation, and personal protective measures across the ROMO and in support of Large Scale Combat Operations
* Veterinary services - Provides food safety and inspection, animal medicine, and preventive medical services. Animal medical care provides preventive care, sick call, combat casualty care, military and contract working dogs hospitalization and medical evacuation between veterinary echelons of care.
* Medical Laboratory Services - Provides laboratory and diagnostic testing at the hospital level. The laboratory contains the necessary supplies, assays, and equipment to allow personnel to provide clinical laboratory testing in support of diagnosis and treatment of military and non-military patients in the field. The services provided include blood banking, hematology, immunohematology, clinical chemistry, serology, bacteriology, parasitology, and urinalysis.
* Medical Logistics - Includes building, distributing, and fielding medical assemblages and equipment; providing operational and maintenance support to the Army medical units; management of set assembly, fielding, and follow-on logistics support to ensure combat ready forces in peacetime and during times of conflict. This includes deployed Combat Medics and Expeditionary Forces, Ground Ambulances, Forward Surgical Teams and fully operational field hospitals, as well as non-medical units with medical requirements (Active, Reserve, and National Guard units).

Note, to date within the medical functional areas, Line Item Q10011 - Medical Treatment and Medical Line Items Q13015 - Evacuation have been established within the CSM program. The MEDEVAC Mission Equipment Package (MEP) G13010 program requirements and funding have been included within the new Medical Evacuation APE in FY 2021 and forward. The remaining medical functions within the CSM program are included within the Field Medical Equipment ASIOE (MB1100) until new Item Numbers for the remaining medical functions have been created.

Secondary Distribution		FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026
Army	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	123.665	67.911	92.394	-	92.394	-	-	-	-
ANG	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	11.044	1.052	2.016	-	2.016	-	-	-	-
AR	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	13.165	6.912	27.735	-	27.735	-	-	-	-
Total: Secondary Distribution	**Quantity**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
	Total Obligation Authority	**147.874**	**75.875**	**122.145**	**-**	**122.145**	**-**	**-**	**-**	**-**

Exhibit P-40, Budget Line Item Justification: PB 2022 Army	**Date:** May 2021
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 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/ MAIS Code	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*
P-5	MB1100 / FIELD MEDICAL EQUIPMENT - Medical ASIOE	P-5a			2,976 / 1,003.481	7,624 / 147.874	1,223 / 75.875	689 / 104.370	- / -	689 / 104.370
P-5	Q10011 / MEDICAL TREATMENT				- / -	- / -	- / -	398 / 5.461	- / -	398 / 5.461
P-5	Q13015 / MEDICAL EVACUATION				- / -	- / -	- / -	234 / 12.314	- / -	234 / 12.314
P-40	**Total Gross/Weapon System Cost**				**- / 1,003.481**	**- / 147.874**	**- / 75.875**	**- / 122.145**	**- / -**	**- / 122.145**

*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:
Combat Support Medical (MN1000) focuses on building Army operational force readiness along with the modernization of all equipment and medical sets used in the operational environment supporting all types of contingencies. The procurement focus will be on total Army authorization growth, modernizing high priority units, and current shortages.

FY 2022 Base procurement dollars in the amount of $83.090 million supports the procurement of 1198 pieces of medical equipment and sets for Army's Multi-Domain Operations.

FY 2022 Base European Deterrence Initiative (BEDI) procurement dollars in the amount of $38.755 million supports the procurement of 1796 pieces of medical equipment and sets to maintain European rotational unit readiness.

Secondary Distribution reflect erroneous COMPO breakout. Quantities should reflect BASE funding, 262 COMPO 1, 176 COMPO 2, 456 COMPO 3, 304 COMPO 6. EDI funding, 1184 COMPO 1, 152 COMPO 2, 136 COMPO 3, and 324 COMPO 6.

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 2022 Army		Date: May 2021
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 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Procurement Quantity *(Units in Each)*	2,976	7,624	1,223	689	-	689
Gross/Weapon System Cost *($ in Millions)*	1,003.481	147.874	75.875	104.370	-	104.370
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	1,003.481	147.874	75.875	104.370	-	104.370
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**1,003.481**	**147.874**	**75.875**	**104.370**	**-**	**104.370**
(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)*	337.191	19.396	62.040	151.480	-	151.480

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

Cost Elements	Prior Years			FY 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 Total		
	Unit Cost *($ K)*	Qty *(Each)*	Total Cost *($ M)*	Unit Cost *($ K)*	Qty *(Each)*	Total Cost *($ M)*	Unit Cost *($ K)*	Qty *(Each)*	Total Cost *($ M)*	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	38.847	1,573	61.106	14.774	243	3.590	29.283	175	5.125	-	-	-	-	-	-	-	-	-
Ambulatory Care Equipment	15.514	11,165	173.214	16.270	4,757	77.396	5.957	3,506	20.884	-	-	-	-	-	-	-	-	-
Dental Equipment	3.119	58,297	181.828	16.402	60	0.984	27.500	37	1.018	-	-	-	-	-	-	-	-	-
Opthamology/ optometry Equipment	723.106	18	13.016	-	-	-	7.000	15	0.105	-	-	-	-	-	-	-	-	-
Surgical Equipment	44.864	2,070	92.868	-	-	-	80.000	7	0.560	-	-	-	-	-	-	-	-	-
Veterinary Equipment	124.049	183	22.701	-	-	-	169.024	41	6.930	-	-	-	-	-	-	-	-	-
Diagnostic Imaging Equipment	942.786	250	235.697	32.196	171	5.506	45.111	72	3.248	-	-	-	-	-	-	-	-	-
Therapy/Treatment	7.430	1,367	10.157	-	-	-	80.000	7	0.560	-	-	-	-	-	-	-	-	-
Environmental (Water)	7.236	2,276	16.469	-	-	-	37.000	13	0.481	-	-	-	-	-	-	-	-	-
TMDE (Test, Measurement, Diagnostic Eq)	55.746	406	22.633	7.718	147	1.135	4.563	229	1.045	-	-	-	-	-	-	-	-	-
HOSPITAL	1,206.891	144	173.792	0.797	67,049	53.438	137.500	8	1.100	-	-	-	-	-	-	-	-	-
MED OXYGEN	-	-	-	40.133	144	5.779	139.645	245	34.213	-	-	-	-	-	-	-	-	-
PHARM	-	-	-	3.068	15	0.046	75.875	8	0.607	-	-	-	-	-	-	-	-	-
Hospitalization(†)	-	-	-	-	-	-	-	-	-	46,215.325	1	46.215	-	-	-	46,215.325	1	46.215

Exhibit P-5, Cost Analysis: PB 2022 Army		Date: May 2021
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 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 Total		
	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)
Preventive Medicine(†)	-	-	-	-	-	-	-	-	-	312.023	1	0.312	-	-	-	312.023	1	0.312
Medical Logistics(†)	-	-	-	-	-	-	-	-	-	19,827.246	1	19.827	-	-	-	19,827.246	1	19.827
Dental Services(†)	-	-	-	-	-	-	-	-	-	328.956	1	0.329	-	-	-	328.956	1	0.329
Medical Lab(†)	-	-	-	-	-	-	-	-	-	1,843.347	1	1.843	-	-	-	1,843.347	1	1.843
Veterinary Services(†)	-	-	-	-	-	-	-	-	-	2,906.913	1	2.907	-	-	-	2,906.913	1	2.907
Medical Evacuation(†)	-	-	-	-	-	-	-	-	-	9,124.008	1	9.124	-	-	-	9,124.008	1	9.124
Medical Treatment(†)	-	-	-	-	-	-	-	-	-	21,742.579	1	21.743	-	-	-	21,742.579	1	21.743
DLA SMS FEES	-	-	-	-	-	-	-	-	-	2,070.000	1	2.070	-	-	-	2,070.000	1	2.070
Subtotal: Recurring Cost	-	-	*1,003.481*	-	-	*147.874*	-	-	*75.875*	-	-	*104.370*	-	-	-	-	-	*104.370*
Subtotal: Flyaway Cost	**-**	**-**	***1,003.481***	**-**	**-**	***147.874***	**-**	**-**	***75.875***	**-**	**-**	***104.370***	**-**	**-**	**-**	**-**	**-**	***104.370***
Gross/Weapon System Cost	**337.191**	**2,976**	**1,003.481**	**19.396**	**7,624**	**147.874**	**62.040**	**1,223**	**75.875**	**151.480**	**689**	**104.370**	**-**	**-**	**-**	**151.480**	**689**	**104.370**

Remarks:
FY20 Actuals- $2.024M aligned under MB1100 Field Medical Equipment- Medical ASIOE to be obligated in FY21. This will be procured under multiple cost elements.

Please note 134.443 is an erroneous unit cost Gross Cost, looking to getting this number corrected within the database

For activities prior to FY 2022 this program (Line Item MB1100 - Field Medical Equipment Associated Support Items of Equipment (ASIOE)) supported the balance of CSM requirements and funding not included in Line Item G13010 - MEDEVAC MEP.

For FY22 and beyond, MB1100 - Field Medical Equipment ASIOE includes requirements and funding for the balance of the six medical functions not covered under the Line Items Q10011 Medical Treatment and Q13015 Medical Evacuation. These include: hospitalization, veterinary services, medical laboratory services, medical logistics, dental, and preventive medicine as detailed within P-1 Descriptions and Justifications under Line Item 7500MN1000 - Combat Support Medical.

Field Medical Equipment ASIOE includes 195 medical equipment ASIOE and set LINs. For FY22, requirements within 163 LINs will be procured equating to 2,374 items.

FY22 P40 Resource Summary and Secondary Distribution reflect erroneous quantities. Quantities should reflect 578 BASE funding and 1796 BASE EDI funding.

Secondary Distribution reflect erroneous COMPO breakout. COMPO breakout is 1347 COMPO 1, 205 COMPO 2, 326 COMPO 3, and 496 COMPO 6.

MB1100 P-5 includes all program requirements within the following medical functional areas aligned to both BASE and BASE EDI funding: Hospitalization, Preventive Medicine, Medical Logistics, Dental Services, Medical Laboratory Services, Veterinary Services.

Exhibit P-5, Cost Analysis: PB 2022 Army		Date: May 2021
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:**	

MB1100 P-5 includes all program requirements within the Medical Evacuation and Medical Treatment functional areas aligned to BASE EDI funding. The EDI funding requirements are still aligned to the MB1100 budget line.

Secondary Distribution		FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Army	Quantity	6,376	610	438	-	438
	Total Obligation Authority	123.665	67.911	80.574	-	80.574
ANG	Quantity	650	57	55	-	55
	Total Obligation Authority	11.044	1.052	0.504	-	0.504
AR	Quantity	598	556	196	-	196
	Total Obligation Authority	13.165	6.912	23.292	-	23.292
Total: Secondary Distribution	**Quantity**	**7,624**	**1,223**	**689**	**-**	**689**
	Total Obligation Authority	**147.874**	**75.875**	**104.370**	**-**	**104.370**

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2022 Army		Date: May 2021
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
Hospitalization		2022	Various / Various	Various	DLA, Philadelphia, PA/USAMRAA, Ft. Detrick, MD	Oct 2021	Dec 2021	1	46,215.325	N		
Preventive Medicine		2022	Various / Various	Various	DLA, Philadelphia, PA	Oct 2021	Dec 2021	1	312.023	N		
Medical Logistics		2022	Various / Various	Various	DLA, Philadelphia, PA	Oct 2021	Dec 2021	1	19,827.246	N		
Dental Services		2022	Various / Various	Various	DLA, Philadelphia, PA	Oct 2021	Dec 2021	1	328.956	N		
Medical Lab		2022	Various / Various	Various	DLA, Philadelphia, PA	Oct 2021	Dec 2021	1	1,843.347	N		
Veterinary Services		2022	Various / Various	Various	DLA, Philadelphia, PA	Oct 2021	Dec 2021	1	2,906.913	N		
Medical Evacuation		2022	Various / Various	Various	DLA, Philadelphia, PA	Oct 2021	Dec 2021	1	9,124.008	N		
Medical Treatment		2022	Various / Various	Various	DLA, Philadelphia, PA	Oct 2021	Dec 2021	1	21,742.579	N		

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.

Flyaway costs include the DLA surcharge. The DLA surcharge is the DLA Cost recovery Rate for SMS, 41.5%, which includes cost to set up/manage contracts, hipping, handling for each item, and any inventory costs. (Latest estimate from DLA Troop Support.) The Cost Recovery Rate (CRR) is the amount added to the cost of an item to recover costs associated with purchasing and selling supplies to the customer. These costs include operating costs such as payroll, shipping, storage, accounting, and cataloging as well as recovery or return of prior year operating results and any necessary capital or cash surcharges.

Exhibit P-5, Cost Analysis: PB 2022 Army		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 40	**P-1 Line Item Number / Title:** 7500MN1000 / Combat Support Medical	**Item Number / Title [DODIC]:** Q10011 / MEDICAL TREATMENT
ID Code (A=Service Ready, B=Not Service Ready) :	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Procurement Quantity *(Units in Each)*	-	-	-	398	-	398
Gross/Weapon System Cost *($ in Millions)*	-	-	-	5.461	-	5.461
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	-	-	-	5.461	-	5.461
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**-**	**-**	**-**	**5.461**	**-**	**5.461**
(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)*	-	-	-	13.721	-	13.721

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

Cost Elements	Prior Years			FY 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 Total		
	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	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																		
DLA SMS Fees	-	-	-	-	-	-	-	-	-	1,195.212	1	1.195	-	-	-	1,195.212	1	1.195
MEDICAL TREATMENT	-	-	-	-	-	-	-	-	-	4,266.045	1	4.266	-	-	-	4,266.045	1	4.266
Subtotal: Recurring Cost	-	-	-	-	-	-	-	-	-	-	-	*5.461*	-	-	-	-	-	*5.461*
Subtotal: Flyaway Cost	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***5.461***	**-**	**-**	**-**	**-**	**-**	***5.461***
Gross/Weapon System Cost	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**13.721**	**398**	**5.461**	**-**	**-**	**-**	**13.721**	**398**	**5.461**

Remarks:
Prior to FY 2021, requirements and funding for Line Item Q10011 - Medical Treatment was included within Line Item MB1100 ? Field Medical Equipment ASIOE. Starting in FY 2022, requirements and funding aligned to BASE funding for this functional area are included within this Line Item.

Medical treatment in the field allows for Soldiers to return-to-duty; who can be treated on-site or for stabilization and evacuation requiring definitive, recovering, and rehabilitative care in stateside hospitals or other safe haven. Medical treatment occurs in all areas of the battlefield, from care under fire (point of injury) to Battalion Aid Stations, Forward Resuscitative and Surgical Teams to Hospital Centers/Field Hospitals, evacuation, and everywhere in between. At the point of injury, a medical provider in the field may only have basic training background and tools to diagnose and treat their patient. With mobility and capability in mind, the Army looks to field smaller, lighter, more clinically capable equipment and supplies to help provide the best patient care in these limited environments. At points of care with more resources, size and weight may not be as critical of a factor to consider. Devices with increased diagnostic or treatment capability help providers to enhance care for patients with traumatic brain injury, hemorrhage, or other life-threatening conditions.

Examples of devices procured within the medical treatment functional area include patient vital signs monitors, infusion pumps, fluid warming systems, tourniquets, ultrasound, and x-ray which are standard and essential for medical treatment of a wide array of conditions. Medical Equipment Sets (MES) used for return-to-duty patients who can be treated on-site with holistic health and fitness include, but are not limited to the Physical Therapy MES, the Occupational Therapy MES and the Dietitian MES. Depending on their size, weight, and capability, these can be found at all roles of care throughout the battlefield.

Exhibit P-5, Cost Analysis: PB 2022 Army		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 40	**P-1 Line Item Number / Title:** 7500MN1000 / Combat Support Medical	**Item Number / Title [DODIC]:** Q10011 / MEDICAL TREATMENT
ID Code (A=Service Ready, B=Not Service Ready) :	**MDAP/MAIS Code:**	

Highly capable medical Units possess a full complement of the latest medical tools to quickly treat patients on the battlefield. The procurement focus will be on total Army authorization growth, modernizing high priority units, and fulfilling current shortages. The equipment and supplies procured are predominantly commercial items configured for military use and packaged into various medical sets, kits, or outfits (SKOs). Each SKO is unique and designed based on the location in the battlefield, the type of treatment that will be required, and the skill level of the person providing treatment. The SKOs are actively managed and modernized to ensure the Warfighter is receiving the highest standard of care provided on the battlefield enabling their return to duty and/or home station. These are procured from small, medium and large businesses located across the United States which are fielded to active duty Army, Army Reserves, National Guard and Army Pre-Positioned Stock.

Medical Treatment includes 34 medical equipment ASIOE and set LINs. For FY22, requirements within 9 LINs will be procured equating to 366 items.

FY22 P40 Resource Summary and Secondary Distribution reflect erroneous quantities. Quantities should reflect 366 BASE funding.

Secondary Distribution reflect erroneous COMPO breakout. COMPO breakout is 34 COMPO 1, 39 COMPO 2, 236 COMPO 3, and 57 COMPO 6.

Secondary Distribution		FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Army	Quantity	-	-	102	-	102
	Total Obligation Authority	-	-	1.495	-	1.495
ANG	Quantity	-	-	54	-	54
	Total Obligation Authority	-	-	0.517	-	0.517
AR	Quantity	-	-	242	-	242
	Total Obligation Authority	-	-	3.449	-	3.449
Total: Secondary Distribution	**Quantity**	**-**	**-**	**398**	**-**	**398**
	Total Obligation Authority	**-**	**-**	**5.461**	**-**	**5.461**

Exhibit P-5, Cost Analysis: PB 2022 Army		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 40	P-1 Line Item Number / Title: 7500MN1000 / Combat Support Medical	Item Number / Title [DODIC]: Q13015 / MEDICAL EVACUATION
ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:	

Resource Summary	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Procurement Quantity *(Units in Each)*	-	-	-	234	-	234
Gross/Weapon System Cost *($ in Millions)*	-	-	-	12.314	-	12.314
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	-	-	-	12.314	-	12.314
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**-**	**-**	**-**	**12.314**	**-**	**12.314**
(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)*	-	-	-	52.624	-	52.624

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

Cost Elements	Prior Years			FY 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 Total		
	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	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 Evacuation	-	-	-	-	-	-	-	-	-	4,680.523	1	4.681	-	-	-	4,680.523	1	4.681
MEDEVAC MEP	-	-	-	-	-	-	-	-	-	7,633.952	1	7.634	-	-	-	7,633.952	1	7.634
Subtotal: Recurring Cost	-	-	-	-	-	-	-	-	-	-	-	*12.314*	-	-	-	-	-	*12.314*
Subtotal: Flyaway Cost	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***12.314***	**-**	**-**	**-**	**-**	**-**	***12.314***
Gross/Weapon System Cost	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**52.624**	**234**	**12.314**	**-**	**-**	**-**	**52.624**	**234**	**12.314**

Remarks:
Prior to FY 2021, requirements and funding for Line Item Q13015 - Medical Evacuation was included within Line Items Line Item MB1100 ? Field Medical Equipment ASIOE and within the G13010 - MEDEVAC MEP. Beginning in FY 2022, requirements and funding aligned to BASE funding for this functional area are included within this Line Item.

The Medical Evacuation Program provides equipment to ground and air medical evacuation units to move casualties from point of injury, company aid posts, or casualty/patient collection points to medical treatment facilities in an operational environment. Medical evacuation units use ground and air ambulances outfitted with medical mission equipment to locate wounded and ill Warfighters, perform triage, document patient contacts, move patients, provide stabilization and life-saving treatment. Units provide intra-theater situational awareness of patient and medical evacuation asset status and rapid response for the emergency movement of medical personnel and emergency delivery of whole blood, biological, and medical supplies and equipment.

This program also supports the MEDEVAC Equipment Package (MEP) which includes Forward Looking Infra-Red Sensor (FLIR), Black Hawk Advanced MEDEVAC (BAM) window, Interim MEDEVAC Mission Support System (IMMSS) Patient Handling System, and patient cabin heater. This program will transition from the UH-60A/L MEDEVAC platforms as the fleet converts to the UH-60V design. This transition requires UH-60L to UH-60V conversion kits to enhance operational standardization throughout the MEDEVAC air ambulance fleet and strengthens the fleet?s ability during Multi Domain Operations.

Highly capable medical evacuation Units possess a full complement of the latest medical tools to quickly locate, treat and evacuate patients and move critical medical personnel and supplies as necessary on the battlefield. Medical evacuation assets are critical to clearing the battlefield of patients and allowing commanders to achieve maximum agility and minimize forward logistical burden of holding patients. The

Exhibit P-5, Cost Analysis: PB 2022 Army		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 40	**P-1 Line Item Number / Title:** 7500MN1000 / Combat Support Medical	**Item Number / Title [DODIC]:** Q13015 / MEDICAL EVACUATION
ID Code (A=Service Ready, B=Not Service Ready) :	**MDAP/MAIS Code:**	

equipment and supplies procured are predominantly commercial items and many are packaged into various medical Sets, Kits, or Outfits (SKOs). Each SKO is unique and designed based on the location in the battlefield, the type of treatment required, and the skill level of the person providing treatment. The SKOs are actively managed and modernized to ensure the Warfighter is receiving the highest standard of care provided on the battlefield, enabling our sons and daughters to return home alive. These are procured from small, medium and large businesses across the United States which are fielded to active duty Army, Army Reserves, National Guard and units.

Medical Evacuation includes 5 medical equipment ASIOE and set LINs. For FY22, requirements within 4 LINs will be procured equating to 254 items.

FY22 P40 Resource Summary and Secondary Distribution reflect erroneous quantities. Quantities should reflect 254 BASE funding.

Secondary Distribution reflect erroneous COMPO breakout. COMPO breakout is 70 COMBO 1, 83 COMPO 2, 31 COMPO 3, 70 COMPO 6.

Secondary Distribution		FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Army	Quantity	-	-	156	-	156
	Total Obligation Authority	-	-	10.325	-	10.325
ANG	Quantity	-	-	39	-	39
	Total Obligation Authority	-	-	0.995	-	0.995
AR	Quantity	-	-	39	-	39
	Total Obligation Authority	-	-	0.994	-	0.994
Total: Secondary Distribution	**Quantity**	**-**	**-**	**234**	**-**	**234**
	Total Obligation Authority	**-**	**-**	**12.314**	**-**	**12.314**

Exhibit P-40, Budget Line Item Justification: PB 2022 Army	Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 45: Maintenance Equipment	**P-1 Line Item Number / Title:** 0639G05301 / Mobile Maintenance Equipment Systems

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

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026	To Complete	Total
Procurement Quantity *(Units in Each)*	212	100	475	29	-	29	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	1,048.978	140.053	168.106	14.756	-	14.756	-	-	-	-	-	-
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	1,048.978	140.053	168.106	14.756	-	14.756	-	-	-	-	-	-
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**1,048.978**	**140.053**	**168.106**	**14.756**	**-**	**14.756**	**-**	**-**	**-**	**-**	**-**	**-**
(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)*	4,948.009	1,400.530	353.907	508.828	-	508.828	-	-	-	-	-	-

Description:

The Mobile Maintenance Equipment Systems (MMES) enables readiness of combat and combat support systems through a system of systems approach to provide two-level maintenance capability to the Warfighter. The MMES significantly increases the capability of forward maintenance units to conduct necessary battlefield repairs supporting Soldier Lethality, Next Generation Combat Vehicle (NGCV) and Long Range Precision Fires (LRPF), as well as, addressing Gaps 10 and 17. Two-level maintenance is critical to the operation and readiness of current and next generation combat vehicles. Eight inter-connected maintenance systems distributed throughout the Army at multiple levels and echelons provide a holistic repair capability in all environments. This approach meets the Army's two-level maintenance philosophy and supports the current force while also providing modular configurations to meet the specific needs of the Army maintainer in today's transforming environment. The MMES family of systems includes Metal Working and Machining Shop Set, Fire Suppression Refill System, Armament Repair Shop Set, Hydraulic Systems Test and Repair Unit, Next Generation Shop Equipment Welding, Next Generation Shop Equipment Contact Maintenance, Forward Repair System, and Standard Automotive Tool Set. The Resource Summary prior year dollar/quantity reflects active programs and does not include inactive programs that were funded under MMES.

The Metal Working and Machining Shop Set (MWMSS) containerizes and consolidates numerous metal working capabilities into one expeditionary system for the Allied Trades Military Occupational Specialty (MOS) 91E and 914 Warrant Officers. The MWMSS impacts three HIGH RISK gaps enabling rapid repair at the point-of-contact through fabrication using additive (3D printers) and subtractive manufacturing capabilities supporting Soldier Lethality, NGCV and LRPF, as well as, addressing Gaps 10 and 17. The MWMSS provides 75% of Brigade Combat Team (BCT) metal working fabrication capability to support ALL combat platforms and 100% of Additive Manufacturing (AM) capability in BCT formations. The MWMSS provides a far forward capability to fabricate and develop repair parts enabling Battle Damage Assessment and Repair (BDAR) options during combat operations. The MWMSS provides commanders real-time, on-demand fabrication and repairs to equipment, components, and parts by fabricating, cutting, welding, and machining. The MWMSS assembles and packages a tool load configuration to replace multiple obsolete Line Item Numbers (LINs) without losing any capability while reducing the logistics footprint. The MWMSS consists of a Type I and Type II shelter. Type I contains a Computer Numeric Controlled(CNC) Lathe, Mill Drill, Multi-Process Welding, Thermal Cutting equipment, Air-Arc Gouging, air compressor, Mobile Electric Power (MEP) generator for shop power, Environmental Control Unit (ECU), and an assortment of hand/air tools. Type II augments Type I and contains a CNC Milling Machine, Plasma table, additive manufacturing, ECU, and an assortment of hand/air tools. The MWMSS is transportable by standard ground Pallatized Load Handling System/Load Handling System (PLS/LHS), air (C-130), rail and sea assets. MWMSS is being produced organically by the Joint Manufacturing Technology Center in Rock Island, IL. Army Acquisition Objective (AAO) of MWMSS is 276 Type I and 163 Type II.

The Fire Suppression Refill System (FSRS) fills a gap in the Army as the only deployable refill system able to produce Nitrogen and refill all combat platform Fire Suppression and Nitrogen bottles, supporting Gaps 10 & 17. The FSRS supports combat systems (Abrams, Joint Lightweight Tactical Vehicle (JLTV), Stryker, Ground Mobility Vehicle (GMV), Night Vision Device (NVD), and Paladin). Comprised of a modular, flexible, standardized fire suppression refill station consisting of a transportable ISO 8x8x20 container with an integrated Environmental Control Unit (ECU). The FSRS is an integrated unit equipped for safe performance of refilling fire suppression bottles and systems. The FSRS consists of an enclosure containing the tools and equipment needed to fulfill the required refill tasks and a trailer for transportation.

Exhibit P-40, Budget Line Item Justification: PB 2022 Army		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 45: Maintenance Equipment	**P-1 Line Item Number / Title:** 0639G05301 / Mobile Maintenance Equipment Systems	
ID Code (A=Service Ready, B=Not Service Ready): A	**Program Elements for Code B Items:** N/A	**Other Related Program Elements:** N/A
Line Item MDAP/MAIS Code: N/A		

These systems include both man portable systems as well as the fire suppression systems that can be found in military vehicles. The FSRS operates in every Support Maintenance Company (SMC) and Field Maintenance Company (FMC), Ground Support Sections. FSRS is a Forward Capability on the Battlefield located at the Point of Contact. The FSRS is deployed and employed in all geographical locations and environments where the U.S. Army operates. FSRS is being produced organically by the Joint Manufacturing Technology Center in Rock Island, IL. Army Acquisition Objective (AAO) of FSRS is 156 systems.

The Armament Repair Shop Set (ARSS) dramatically increases the Army's ability to execute maintenance and repair forward on all weapons and armament systems from Small Arms to towed artillery and howitzers, and directly supporting Soldier Lethality, NGCV and LRPF, as well as, addressing Gaps 10 and 17. Provides the newest technology, such as the Digital Borescope/Gun Bore Camera, that allows the maintainer to inspect, document, and gauge the inside surfaces of mortar and cannon tubes, reducing gauging time and micrometer mistakes. The ARSS significantly improves on-site maintenance capability with increased proficiency and deployability. The ARSS provides a field/sustainment level maintenance and repair support platform for armament weapon systems to support units across the full spectrum of military operations. By providing on-system maintenance repairs to weapon systems and/or components as far forward as possible on the battlefield, ARSS enables major combat systems to quickly return to the fight, provides technological advancements and professional-grade tools with lifetime warranties, which will bring a savings to the Army for many years. The ARSS consolidates four Line Item Numbers (LINs) to one and equips our forces with the most current and accurate tools to complete the mission while performing maintenance on the latest technologically advanced weaponry from small arms to field artillery. The consolidation of the four LINs to one results in a reduction from four tactical vehicles required to transport the individual shop sets to just one tactical vehicle to transport the ARSS. In addition, the ARSS eliminates a 51% tool redundancy across the previous four armament shop sets while reducing 43% of the armament repair tools in the field. The ARSS is fielded to the Infantry Brigade Combat Teams (IBCTs), Armored Brigade Combat Teams (ABCTs), Stryker Brigade Combat Teams (SBCTs), Support Maintenance Companies (SMCs), Component Repair Companies (CRCs), and Forward Support Companies (FSCs). ARSS is being produced organically by the Tobyhanna Army Depot, in Pennsylvania. AAO of ARSS is 1026 (ARRS I AAO of 164. ARSS II AAO of 858) .

The Next Generation Shop Equipment Welding Trailer (NG SEW) provides a full spectrum of welding capabilities throughout the battlefield, allowing repairs to be performed in all weather, climatic and light conditions. Metal Inert Gas (MIG) welding, and plasma cutting supporting Gaps 10 & 17. The NG SEW supports all combat systems. The NG SEW units provides the Army with rapidly deployable welding and maintenance capabilities to be used and operated in harsh environments, which are capable of battle damage repair. The system is an integrated unit, using custom cabinets to house and secure the system equipment. The equipment consists of all the major welding processes, including: Shielded Metal Arc Welding (SMAW), commonly referred to as Stick Welding; Gas Metal Arc Welding (GMAW), commonly referred to as Metal Inert Gas (MIG); Gas Tungsten Arc Welding (GTAW), commonly referred to as Tungsten Inert Gas (TIG); Flux Cored Arc Welding (FCAW); and Gas Welding with oxygen and acetylene. The NG SEW's metal cutting processes include: the angle grinder, reciprocating saw, hack saw, oxygen, acetylene, and plasma. The NG SEW is suitable for rapid deployment, employment, and re-deployment, with minimal preparation, and is able to operate in unimproved areas and all applicable environmental conditions. The NG SEW is suitable for towing by the Army's family of light medium tactical vehicles (FMTV). The NG SEW unit receives electrical power from a 15 kW Army Standard generator, and it powers the electrical equipment while in operational mode. NG SEW is being produced organically by the Joint Manufacturing Technology Center in Rock Island, IL. Approved Acquisition Objective (AAO) is 513.

The Next Generation Shop Equipment Contact Maintenance (NG SECM) is a fabricated enclosure mounted on a High Mobility Multipurpose Wheeled Vehicle (HMMWV) with 2 trained maintainers that conducts immediate field maintenance. The NG SECM is a first responder to battle/Improvised Explosive Device damaged tracked, wheeled, and ground support equipment and provides immediate field level maintenance. The NG SECM's mobility, agility, and maintenance capability is a combat maintenance multiplier by getting equipment back into the fight as far forward as possible and contains required common tools and compressed air to enable maintainers the ability to provide on-site maintenance forward, freeing up recovery assets. NG SECM supports Army Gaps #10 (Tactical and Sustainment Mobility), Gap #17 (Div Materiel or Higher Echelon Main). NG SECM is being produced organically by the Joint Manufacturing Technology Center in Rock Island, IL.Approved Acquisition Objective (AAO) is 4425.

Secondary Distribution		FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026
Army	Quantity	54	419	16	-	16	-	-	-	-
	Total Obligation Authority	109.427	144.638	7.748	-	7.748	-	-	-	-
ANG	Quantity	38	48	11	-	11	-	-	-	-
	Total Obligation Authority	24.904	17.592	6.086	-	6.086	-	-	-	-
AR	Quantity	8	8	2	-	2	-	-	-	-
	Total Obligation Authority	5.722	5.876	0.922	-	0.922	-	-	-	-

Exhibit P-40, Budget Line Item Justification: PB 2022 Army		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 45: Maintenance Equipment	**P-1 Line Item Number / Title:** 0639G05301 / Mobile Maintenance Equipment Systems	
ID Code (A=Service Ready, B=Not Service Ready): A	**Program Elements for Code B Items:** N/A	**Other Related Program Elements:** N/A
Line Item MDAP/MAIS Code: N/A		

Secondary Distribution		FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026
Total: Secondary Distribution	Quantity	100	475	29	-	29	-	-	-	-
	Total Obligation Authority	140.053	168.106	14.756	-	14.756	-	-	-	-

Exhibit P-40, Budget Line Item Justification: PB 2022 Army	Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 45: Maintenance Equipment	**P-1 Line Item Number / Title:** 0639G05301 / Mobile Maintenance Equipment Systems

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

Line Item MDAP/MAIS Code: N/A

Exhibits Schedule					Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 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	A		54 / 65.392	33 / 15.750	36 / 17.219	7 / 5.309	- / -	7 / 5.309
P-5	G05320 / FIRE SUPPRESSION REFILL SYSTEM (FSRS)	P-5a	A		35 / 27.233	26 / 8.370	7 / 2.778	8 / 3.814	- / -	8 / 3.814
P-5	G05330 / ARMAMENT REPAIR SHOP SET (ARSS)	P-5a	A		70 / 71.359	6 / 22.636	82 / 28.109	14 / 5.633	- / -	14 / 5.633
P-5	M61500 / Shop Equipment, Contact Maintenance (SECM)	P-5a	A		- / 658.057	- / 85.000	350 / 120.000	- / -	- / -	- / -
P-5	M62700 / Shop Equipment, Welding (SEW)	P-5a	A		53 / 226.937	35 / 8.297	- / -	- / -	- / -	- / -
P-40	**Total Gross/Weapon System Cost**				**212 / 1,048.978**	**100 / 140.053**	**475 / 168.106**	**29 / 14.756**	**- / -**	**29 / 14.756**

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

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

Justification:
The Mobile Maintenance Equipment Systems are critical maintenance multipliers for combat equipment that mobilizes mechanics and maintenance equipment to repair damaged light, medium, and heavy Combat and Combat Support systems in the Brigade Combat Teams (BCTs) and Combat Aviation Brigades (CABs) as close to the front lines as is safely possible. The MMES significantly increases the capability of forward maintenance units to conduct necessary battlefield repairs supporting Soldier Lethality, NGCV and LRPF, as well as, addressing GAPs 10 and 17. With the MMES, systems and Soldiers do not have to wait for recovery vehicles to arrive and remove the system from the battlefield, thus reducing risk to the soldiers and equipment.

FY22 Base dollars in the amount of $14.756 million supports the following:

Metal Working and Machining Shop Set (MWMSS): FY22 Base procurement dollars of $5.309 million will fund 5 MWMSS modules (3 Type I and 2 Type II) to support Base requirements.

FY22 base procurement dollars of $1.241 million will fund 2 MWMSS Type I modules to support the Enduring Requirement for Operation Base European Deterrence Initiative (BEDI). MWMSS represents a significant upgrade in technology and replaces several outdated LINs.

The MWMSS impacts three HIGH RISK gaps enabling rapid repair at the point-of-need through fabrication using additive (3D printers) and subtractive manufacturing capabilities supporting Soldier Lethality, Next Generation Combat Vehicle (NGCV) and Long Range Precision Fires (LRPF), as well as, addressing Gaps 10 and 17. Funding supports the organic industrial base with work to be performed at Rock Island Arsenal - Joint Manufacturing &Technology Center, including purchase of long lead material and subsequent production effort
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Fire Suppression Refill System (FSRS): FY22 Base procurement dollars of $3.814 million will fund 8 FSRS to support Base requirements, and will be fielded to Armored Brigade Combat Teams (ABCTs) and Stryker Brigade Combat Teams (SBCTs), and Support Maintenance Companies (SMC).

The Fire Suppression Refill System (FSRS) fills a gap in the Army as the only deployable refill system able to produce Nitrogen and refill all combat platform Fire Suppression and Nitrogen bottles, supporting Gaps 10 & 17. Funding supports the organic industrial base with work to be performed at Rock Island Arsenal - Joint Manufacturing &Technology Center, including purchase of long lead material and subsequent production effort.

Armament Repair Shop Set (ARSS): FY22 Base procurement dollars of $5.633 million will fund 8 ARSS to support Base requirements, and will be fielded to the Infantry Brigade Combat Teams (IBCTs), Armored Brigade Combat Teams (ABCTs), 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.

Exhibit P-40, Budget Line Item Justification: PB 2022 Army		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 45: Maintenance Equipment	**P-1 Line Item Number / Title:** 0639G05301 / Mobile Maintenance Equipment Systems	
ID Code (A=Service Ready, B=Not Service Ready): A	**Program Elements for Code B Items:** N/A	**Other Related Program Elements:** N/A
Line Item MDAP/MAIS Code: N/A		

FY22 base procurement dollars of $2.084 million will fund 6 ARSS to support the Enduring Requirement for Operation Base European Deterrence Initiative (BEDI).

The Armament Repair Shop Set (ARSS) dramatically increases the Army's ability to execute maintenance and repair forward on all weapons and armament systems from Small Arms to towed artillery and howitzers, and directly supporting Soldier Lethality, NGCV and LRPF, as well as, addressing Gaps 10 and 17. Funding supports the organic industrial base with work to be performed at Tobyhanna Army Depot, including purchase of long lead material and subsequent production effort.

Next Generation Shop Equipment Welder (NG SEW): NG SEW has no FY22 funding. NG SEW provides a full spectrum of welding capabilities throughout the battlefield, allowing repairs to be performed in all weather, climatic and light conditions. Metal Inert Gas (MIG) welding, and plasma cutting supporting Gaps 10 & 17. The NG SEW supports all combat systems. Funding supports the organic industrial base with work to be performed at Rock Island Arsenal - Joint Manufacturing &Technology Center, including purchase of long lead material and subsequent production effort.

Next Generation Shop Equipment Contact Maintenance (NG SECM): NG SECM has no FY22 funding. NG SECM will replace divesting Heavy SECMs. NG SECM supports Army Gaps #10 (Tactical and Sustainment Mobility), Gap #17 (Div Materiel or Higher Echelon Main).

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 2022 Army		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 45	**P-1 Line Item Number / Title:** 0639G05301 / Mobile Maintenance Equipment Systems	**Item Number / Title [DODIC]:** G05315 / METAL WORKING AND MACHING SHOP SET (MWMSS)
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Procurement Quantity *(Units in Each)*	54	33	36	7	-	7
Gross/Weapon System Cost *($ in Millions)*	65.392	15.750	17.219	5.309	-	5.309
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	65.392	15.750	17.219	5.309	-	5.309
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**65.392**	**15.750**	**17.219**	**5.309**	**-**	**5.309**
(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)*	1,210.963	477.273	478.306	758.429	-	758.429

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

Cost Elements	Prior Years			FY 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 Total		
	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	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	-	-	1.753	-	-	0.150	-	-	0.158	-	-	0.165	-	-	-	-	-	0.165
Quality Assurance Support	-	-	1.727	-	-	0.102	-	-	0.186	-	-	0.195	-	-	-	-	-	0.195
Engineer Change Proposal	-	-	0.749	-	-	0.720	-	-	-	-	-	0.200	-	-	-	-	-	0.200
Subtotal: Recurring Cost	-	-	*4.229*	-	-	*0.972*	-	-	*0.344*	-	-	*0.560*	-	-	-	-	-	*0.560*
Subtotal: Flyaway Cost	**-**	**-**	***4.229***	**-**	**-**	***0.972***	**-**	**-**	***0.344***	**-**	**-**	***0.560***	**-**	**-**	**-**	**-**	**-**	***0.560***
Hardware Cost																		
Recurring Cost																		
Metal Working Machining Shop Set Type I(†)	398.561	82	32.682	430.000	17	7.310	438.000	19	8.322	466.000	4	1.864	-	-	-	466.000	4	1.864
Metal Working Machining Shop Set Type II(†)	305.500	64	19.552	315.000	16	5.040	388.000	17	6.596	408.000	3	1.224	-	-	-	408.000	3	1.224
Subtotal: Recurring Cost	-	-	*52.234*	-	-	*12.350*	-	-	*14.918*	-	-	*3.088*	-	-	-	-	-	*3.088*
Subtotal: Hardware Cost	**-**	**-**	***52.234***	**-**	**-**	***12.350***	**-**	**-**	***14.918***	**-**	**-**	***3.088***	**-**	**-**	**-**	**-**	**-**	***3.088***
Package Fielding Cost																		
Recurring Cost																		
Fielding Support	-	-	1.841	-	-	0.493	-	-	0.763	-	-	0.611	-	-	-	-	-	0.611

Exhibit P-5, Cost Analysis: PB 2022 Army		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 45	**P-1 Line Item Number / Title:** 0639G05301 / Mobile Maintenance Equipment Systems	**Item Number / Title [DODIC]:** G05315 / METAL WORKING AND MACHING SHOP SET (MWMSS)
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	

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

Cost Elements	Prior Years			FY 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 Total		
	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	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	-	-	0.905	-	-	0.288	-	-	0.125	-	-	0.125	-	-	-	-	-	0.125
Tech Manuals	-	-	0.374	-	-	0.700	-	-	0.115	-	-	0.115	-	-	-	-	-	0.115
Subtotal: Recurring Cost	-	-	*3.120*	-	-	*1.481*	-	-	*1.003*	-	-	*0.851*	-	-	-	-	-	*0.851*
Subtotal: Package Fielding Cost	**-**	**-**	***3.120***	**-**	**-**	***1.481***	**-**	**-**	***1.003***	**-**	**-**	***0.851***	**-**	**-**	**-**	**-**	**-**	***0.851***
Logistics Cost																		
Recurring Cost																		
Log support	-	-	0.526	-	-	0.331	-	-	0.395	-	-	0.202	-	-	-	-	-	0.202
Subtotal: Recurring Cost	-	-	*0.526*	-	-	*0.331*	-	-	*0.395*	-	-	*0.202*	-	-	-	-	-	*0.202*
Subtotal: Logistics Cost	**-**	**-**	***0.526***	**-**	**-**	***0.331***	**-**	**-**	***0.395***	**-**	**-**	***0.202***	**-**	**-**	**-**	**-**	**-**	***0.202***
Support - Program Management Cost																		
Government Management	-	-	5.283	-	-	0.616	-	-	0.559	-	-	0.608	-	-	-	-	-	0.608
Subtotal: Support - Program Management Cost	**-**	**-**	***5.283***	**-**	**-**	***0.616***	**-**	**-**	***0.559***	**-**	**-**	***0.608***	**-**	**-**	**-**	**-**	**-**	***0.608***
Gross/Weapon System Cost	**1,210.963**	**54**	**65.392**	**477.273**	**33**	**15.750**	**478.306**	**36**	**17.219**	**758.429**	**7**	**5.309**	**-**	**-**	**-**	**758.429**	**7**	**5.309**

Remarks:

The FY22 investment was reduced by $11,910K from FY21 to FY22 resulting in an increase in the FY22 unit cost.

FY22 base funds of $4,074K and quantity of 5 (2 Type I's and 3 Type II's); FY22 BEDI funds of $1,235K and quantity of 2 (Type I's).

Based on the current execution of the program, FY 2021 Quantities should be 37 . Quantities will be updated to adjust for actual execution data prior to the submission of the FY 2023 President's Budget

FY20 MWMSS Type I unit cost should be $424K; Type II unit cost should be $348K.

FY20 MWMSS Type I increase from 17 to 18. FY20 MWMSS Type II Quantity increase from 16 to 18. This increase in quantities is due to reduction in TM efforts.

Resource Summary section reflects erroneous quantities for Prior Years. P-5 cost element section reflects actual quantities procured in Prior Years (146).

Secondary Distribution		FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Army	Quantity	15	15	4	-	4
	Total Obligation Authority	7.032	7.103	2.908	-	2.908
ANG	Quantity	14	17	3	-	3

Exhibit P-5, Cost Analysis: PB 2022 Army		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 45	**P-1 Line Item Number / Title:** 0639G05301 / Mobile Maintenance Equipment Systems	**Item Number / Title [DODIC]:** G05315 / METAL WORKING AND MACHING SHOP SET (MWMSS)
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	

Secondary Distribution		FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
	Total Obligation Authority	6.595	8.076	2.401	-	2.401
AR	Quantity	4	4	-	-	-
	Total Obligation Authority	2.123	2.040	-	-	-
Total: Secondary Distribution	**Quantity**	**33**	**36**	**7**	**-**	**7**
	Total Obligation Authority	**15.750**	**17.219**	**5.309**	**-**	**5.309**

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2022 Army		Date: May 2021
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		2019	JMTC / Rock Island	MIPR	JMTC, Rock Island, IL	Nov 2018	Jul 2021	22	411.000	Y		
Metal Working Machining Shop Set Type I		2020	JMTC / Rock Island	MIPR	JMTC, Rock Island, IL	Nov 2019	Oct 2021	17	430.000	Y		
Metal Working Machining Shop Set Type I		2021	JMTC / Rock Island	MIPR	JMTC, Rock Island IL	Nov 2020	Feb 2022	19	438.000	Y		
Metal Working Machining Shop Set Type I		2022	JMTC / Rock Island	MIPR	JMTC, Rock Island IL	Nov 2021	Aug 2022	4	466.000	Y		
Metal Working Machining Shop Set Type II		2019	JMTC / Rock Island	MIPR	JMTC, Rock Island, IL	Nov 2018	Jun 2021	6	320.000	Y		
Metal Working Machining Shop Set Type II		2020	JMTC / Rock Island	MIPR	JMTC, Rock Island, IL	Nov 2019	Oct 2021	16	315.000	Y		
Metal Working Machining Shop Set Type II		2021	JMTC / Rock Island	MIPR	JMTC, Rock Island, IL	Nov 2020	Feb 2022	17	388.000	Y		
Metal Working Machining Shop Set Type II		2022	JMTC / Rock Island	MIPR	JMTC, Rock Island, IL	Nov 2021	Aug 2022	3	408.000	Y		

Remarks:
FY20 MWMSS Type II quantity should be 18.

FY21 MWMSS Type II quantity should be 18.

Exhibit P-5, Cost Analysis: PB 2022 Army		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 45	**P-1 Line Item Number / Title:** 0639G05301 / Mobile Maintenance Equipment Systems	**Item Number / Title [DODIC]:** G05320 / FIRE SUPPRESSION REFILL SYSTEM (FSRS)
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Procurement Quantity *(Units in Each)*	35	26	7	8	-	8
Gross/Weapon System Cost *($ in Millions)*	27.233	8.370	2.778	3.814	-	3.814
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	27.233	8.370	2.778	3.814	-	3.814
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**27.233**	**8.370**	**2.778**	**3.814**	**-**	**3.814**
(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)*	778.086	321.923	396.857	476.750	-	476.750

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

Cost Elements	Prior Years			FY 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 Total		
	Unit Cost *($ K)*	Qty *(Each)*	Total Cost *($ M)*	Unit Cost *($ K)*	Qty *(Each)*	Total Cost *($ M)*	Unit Cost *($ K)*	Qty *(Each)*	Total Cost *($ M)*	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	-	-	0.329	-	-	0.072	-	-	0.060	-	-	0.014	-	-	-	-	-	0.014
Tech Manual	-	-	0.002	-	-	0.003	-	-	0.001	-	-	0.001	-	-	-	-	-	0.001
Subtotal: Recurring Cost	-	-	*0.401*	-	-	*0.075*	-	-	*0.061*	-	-	*0.015*	-	-	-	-	-	*0.015*
Subtotal: Flyaway Cost	**-**	**-**	***0.401***	**-**	**-**	***0.075***	**-**	**-**	***0.061***	**-**	**-**	***0.015***	**-**	**-**	**-**	**-**	**-**	***0.015***
Hardware Cost																		
Recurring Cost																		
Fire Suppression Refill System(†)	314.343	35	11.002	295.000	26	7.670	293.610	7	2.055	385.910	8	3.087	-	-	-	385.910	8	3.087
Subtotal: Recurring Cost	-	-	*11.002*	-	-	*7.670*	-	-	*2.055*	-	-	*3.087*	-	-	-	-	-	*3.087*
Subtotal: Hardware Cost	**-**	**-**	***11.002***	**-**	**-**	***7.670***	**-**	**-**	***2.055***	**-**	**-**	***3.087***	**-**	**-**	**-**	**-**	**-**	***3.087***
Support - Fielding Cost																		
Fielding	-	-	1.021	-	-	0.105	-	-	0.293	-	-	0.246	-	-	-	-	-	0.246
Subtotal: Support - Fielding Cost	**-**	**-**	***1.021***	**-**	**-**	***0.105***	**-**	**-**	***0.293***	**-**	**-**	***0.246***	**-**	**-**	**-**	**-**	**-**	***0.246***
Support - Logistics Cost																		
Integrated Logistics Support	-	-	0.329	-	-	0.123	-	-	0.096	-	-	0.134	-	-	-	-	-	0.134

Exhibit P-5, Cost Analysis: PB 2022 Army		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 45	**P-1 Line Item Number / Title:** 0639G05301 / Mobile Maintenance Equipment Systems	**Item Number / Title [DODIC]:** G05320 / FIRE SUPPRESSION REFILL SYSTEM (FSRS)
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	

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

Cost Elements	Prior Years			FY 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 Total		
	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	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 - Logistics Cost	**-**	**-**	***0.329***	**-**	**-**	***0.123***	**-**	**-**	***0.096***	**-**	**-**	***0.134***	**-**	**-**	**-**	**-**	**-**	***0.134***
Support - Production Engineering Cost																		
Production Engineering	-	-	1.142	-	-	0.062	-	-	0.120	-	-	0.110	-	-	-	-	-	0.110
Subtotal: Support - Production Engineering Cost	**-**	**-**	***1.142***	**-**	**-**	***0.062***	**-**	**-**	***0.120***	**-**	**-**	***0.110***	**-**	**-**	**-**	**-**	**-**	***0.110***
Support - Program Management Cost																		
Government Management	-	-	12.427	-	-	0.321	-	-	0.107	-	-	0.124	-	-	-	-	-	0.124
Subtotal: Support - Program Management Cost	**-**	**-**	***12.427***	**-**	**-**	***0.321***	**-**	**-**	***0.107***	**-**	**-**	***0.124***	**-**	**-**	**-**	**-**	**-**	***0.124***
Support - Quality Assurance Cost																		
Quality Assurance	-	-	0.911	-	-	0.014	-	-	0.046	-	-	0.098	-	-	-	-	-	0.098
Subtotal: Support - Quality Assurance Cost	**-**	**-**	***0.911***	**-**	**-**	***0.014***	**-**	**-**	***0.046***	**-**	**-**	***0.098***	**-**	**-**	**-**	**-**	**-**	***0.098***
Gross/Weapon System Cost	**778.086**	**35**	**27.233**	**321.923**	**26**	**8.370**	**396.857**	**7**	**2.778**	**476.750**	**8**	**3.814**	**-**	**-**	**-**	**476.750**	**8**	**3.814**

Remarks:

Total funding decrement of $19,227K over FY22-FY25.

FY21 Unit Cost is lower due to proximity of purchases from FY20.

Prior Year unit cost reflects start-up costs and an inflated container cost in FY19 due to an urgent buy requirement.

Secondary Distribution		FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Army	Quantity	12	3	3	-	3
	Total Obligation Authority	4.017	1.210	1.430	-	1.430
ANG	Quantity	13	4	4	-	4
	Total Obligation Authority	3.783	1.568	1.907	-	1.907
AR	Quantity	1	-	1	-	1
	Total Obligation Authority	0.570	-	0.477	-	0.477
Total: Secondary Distribution	**Quantity**	**26**	**7**	**8**	**-**	**8**
	Total Obligation Authority	**8.370**	**2.778**	**3.814**	**-**	**3.814**

Exhibit P-5, Cost Analysis: PB 2022 Army		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 45	**P-1 Line Item Number / Title:** 0639G05301 / Mobile Maintenance Equipment Systems	**Item Number / Title [DODIC]:** G05320 / FIRE SUPPRESSION REFILL SYSTEM (FSRS)
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2022 Army		Date: May 2021
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		2019	JMTC - Integration / Rock Island Arsenal, IL	MIPR	Rock Island Arsenal, IL	Apr 2019	Nov 2019	16	310.000	Y		
Fire Suppression Refill System		2020	JMTC - Integration / Rock Island Arsenal, IL	MIPR	Rock Island Arsenal, IL	Apr 2020	Nov 2020	26	295.000	Y		
Fire Suppression Refill System		2021	JMTC - Integration / Rock Island Arsenal, IL	MIPR	Rock Island Arsenal, IL	Apr 2021	Nov 2021	7	293.610	Y		
Fire Suppression Refill System		2022	JMTC - Integration / Rock Island Arsenal, IL	MIPR	Rock Island Arsenal, IL	Nov 2021	Jun 2022	8	385.910	Y		

Exhibit P-5, Cost Analysis: PB 2022 Army		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 45	**P-1 Line Item Number / Title:** 0639G05301 / Mobile Maintenance Equipment Systems	**Item Number / Title [DODIC]:** G05330 / ARMAMENT REPAIR SHOP SET (ARSS)
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Procurement Quantity *(Units in Each)*	70	6	82	14	-	14
Gross/Weapon System Cost *($ in Millions)*	71.359	22.636	28.109	5.633	-	5.633
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	71.359	22.636	28.109	5.633	-	5.633
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**71.359**	**22.636**	**28.109**	**5.633**	**-**	**5.633**
(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)*	1,019.414	3,772.667	342.793	402.357	-	402.357

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

Cost Elements	Prior Years			FY 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 Total		
	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)
Flyaway Cost																		
Recurring Cost																		
Engineering	-	-	0.370	-	-	0.098	-	-	0.174	-	-	0.221	-	-	-	-	-	0.221
Quality Assurance	-	-	0.249	-	-	0.019	-	-	0.093	-	-	0.098	-	-	-	-	-	0.098
Engineering Change Proposals	-	-	0.555	-	-	0.485	-	-	0.013	-	-	0.013	-	-	-	-	-	0.013
Transportation	-	-	0.341	-	-	0.384	-	-	0.224	-	-	0.035	-	-	-	-	-	0.035
Subtotal: Recurring Cost	-	-	*1.515*	-	-	*0.986*	-	-	*0.504*	-	-	*0.367*	-	-	-	-	-	*0.367*
Subtotal: Flyaway Cost	**-**	**-**	***1.515***	**-**	**-**	***0.986***	**-**	**-**	***0.504***	**-**	**-**	***0.367***	**-**	**-**	**-**	**-**	**-**	***0.367***
Hardware Cost																		
Recurring Cost																		
ARSS Hardware(†)	376.639	158	59.509	504.000	6	3.024	-	-	-	-	-	-	-	-	-	-	-	-
ARSS 2 Hardware(†)	-	-	-	321.000	55	17.655	323.170	82	26.500	324.000	14	4.536	-	-	-	324.000	14	4.536
Subtotal: Recurring Cost	-	-	*59.509*	-	-	*20.679*	-	-	*26.500*	-	-	*4.536*	-	-	-	-	-	*4.536*
Subtotal: Hardware Cost	**-**	**-**	***59.509***	**-**	**-**	***20.679***	**-**	**-**	***26.500***	**-**	**-**	***4.536***	**-**	**-**	**-**	**-**	**-**	***4.536***
Package Fielding Cost																		
Recurring Cost																		
Fielding Support	-	-	0.670	-	-	0.060	-	-	0.386	-	-	0.244	-	-	-	-	-	0.244
Subtotal: Recurring Cost	-	-	*0.670*	-	-	*0.060*	-	-	*0.386*	-	-	*0.244*	-	-	-	-	-	*0.244*
Subtotal: Package Fielding Cost	**-**	**-**	***0.670***	**-**	**-**	***0.060***	**-**	**-**	***0.386***	**-**	**-**	***0.244***	**-**	**-**	**-**	**-**	**-**	***0.244***

Exhibit P-5, Cost Analysis: PB 2022 Army		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 45	**P-1 Line Item Number / Title:** 0639G05301 / Mobile Maintenance Equipment Systems	**Item Number / Title [DODIC]:** G05330 / ARMAMENT REPAIR SHOP SET (ARSS)
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	

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

Cost Elements	Prior Years			FY 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 Total		
	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)
Support - Logistics Cost																		
Integrated Logistics Support	-	-	0.493	-	-	0.329	-	-	0.391	-	-	0.202	-	-	-	-	-	0.202
Subtotal: Support - Logistics Cost	**-**	**-**	***0.493***	**-**	**-**	***0.329***	**-**	**-**	***0.391***	**-**	**-**	***0.202***	**-**	**-**	**-**	**-**	**-**	***0.202***
Support - Program Management Cost																		
Government Management	-	-	9.172	-	-	0.582	-	-	0.328	-	-	0.284	-	-	-	-	-	0.284
Subtotal: Support - Program Management Cost	**-**	**-**	***9.172***	**-**	**-**	***0.582***	**-**	**-**	***0.328***	**-**	**-**	***0.284***	**-**	**-**	**-**	**-**	**-**	***0.284***
Gross/Weapon System Cost	**1,019.414**	**70**	**71.359**	**3,772.667**	**6**	**22.636**	**342.793**	**82**	**28.109**	**402.357**	**14**	**5.633**	**-**	**-**	**-**	**402.357**	**14**	**5.633**

Remarks:

FY22 funds decreased by $22,476K from FY21 to FY22 causing an increase in the Weapon System Cost.

FY22 Base of $3,557K and quantity of 8; FY22 BEDI of $2,076K and quantity of 6.

FY20 on the P5 unit cost should reflect: ARSS I: $567K and ARSS II: $477K.

Prior year unit cost lower due to receiving shelters at a reduced cost because of a cancellation with another Army program.

Resource Summary section reflects erroneous quantities for FY20. P-5 cost element section reflects actual quantities procured in FY 20(ARSS I= 6 and ARSS II= 55).

Resource Summary section reflects erroneous quantities for Prior Years. . P-5 cost element section reflects actual quantities procured in Prior Years (158).

Prior year funding amount shown is incorrect. Actual funding in Prior Years was $73,552K

Secondary Distribution		FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Army	Quantity	3	51	9	-	9
	Total Obligation Authority	8.836	16.325	3.410	-	3.410
ANG	Quantity	2	27	4	-	4
	Total Obligation Authority	12.204	7.948	1.778	-	1.778
AR	Quantity	1	4	1	-	1
	Total Obligation Authority	1.596	3.836	0.445	-	0.445
Total:	**Quantity**	**6**	**82**	**14**	**-**	**14**

Exhibit P-5, Cost Analysis: PB 2022 Army		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 45	**P-1 Line Item Number / Title:** 0639G05301 / Mobile Maintenance Equipment Systems	**Item Number / Title [DODIC]:** G05330 / ARMAMENT REPAIR SHOP SET (ARSS)
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	

Secondary Distribution		FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Secondary Distribution	Total Obligation Authority	22.636	28.109	5.633	-	5.633

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2022 Army		**Date:** May 2021
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		2019	Tobyhanna Army Depot / Tobyhanna	MIPR	TOBYHANNA ARMY DEPOT, PA	Nov 2018	May 2019	31	395.645	Y		
ARSS Hardware		2020	Tobyhanna Army Depot / Tobyhanna	MIPR	TOBYHANNA ARMY DEPOT, PA	Nov 2019	May 2020	6	504.000	Y		
ARSS 2 Hardware		2020	Tobyhanna Army Depot / Tobyhanna	MIPR	TOBYHANNA ARMY DEPOT, PA	Nov 2019	May 2020	55	321.000	Y		
ARSS 2 Hardware		2021	Tobyhanna Army Depot / Tobyhanna	MIPR	TOBYHANNA ARMY DEPOT, PA	Nov 2020	May 2021	82	323.170	Y		
ARSS 2 Hardware		2022	Tobyhanna Army Depot / Tobyhanna	MIPR	TOBYHANNA ARMY DEPOT, PA	Nov 2021	May 2022	14	324.000	Y		

Exhibit P-5, Cost Analysis: PB 2022 Army		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 45	**P-1 Line Item Number / Title:** 0639G05301 / Mobile Maintenance Equipment Systems	**Item Number / Title [DODIC]:** M61500 / Shop Equipment, Contact Maintenance (SECM)
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Procurement Quantity *(Units in Each)*	-	-	350	-	-	-
Gross/Weapon System Cost *($ in Millions)*	658.057	85.000	120.000	-	-	-
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	658.057	85.000	120.000	-	-	-
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**658.057**	**85.000**	**120.000**	**-**	**-**	**-**
(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)*	-	-	342.857	-	-	-

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

Cost Elements	Prior Years			FY 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 Total		
	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	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	-	-	-	0.100	249	0.025	0.100	350	0.035	-	-	-	-	-	-	-	-	-
Subtotal: Recurring Cost	-	-	-	-	-	*0.025*	-	-	*0.035*	-	-	-	-	-	-	-	-	-
Subtotal: Flyaway Cost	**-**	**-**	**-**	**-**	**-**	***0.025***	**-**	**-**	***0.035***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Hardware Cost																		
Recurring Cost																		
Next Gen Shop Equipment Contact Maintenance(†)	-	-	-	150.000	225	33.750	150.000	325	48.750	-	-	-	-	-	-	-	-	-
HMMWV - Next Gen Shop Equipment Contact Maintenance(†)	-	-	-	157.969	225	35.543	157.966	325	51.339	-	-	-	-	-	-	-	-	-
HMMWV and Next Gen Shop Equipment Contact Maintenance(†)	-	-	-	350.000	24	8.400	350.000	25	8.750	-	-	-	-	-	-	-	-	-
Shop Equipment Contact Maintenacne	91.740	7,115	652.728	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Recurring Cost	-	-	*652.728*	-	-	*77.693*	-	-	*108.839*	-	-	-	-	-	-	-	-	-
Subtotal: Hardware Cost	**-**	**-**	***652.728***	**-**	**-**	***77.693***	**-**	**-**	***108.839***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Package Fielding Cost																		

Exhibit P-5, Cost Analysis: PB 2022 Army		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 45	P-1 Line Item Number / Title: 0639G05301 / Mobile Maintenance Equipment Systems	Item Number / Title [DODIC]: M61500 / Shop Equipment, Contact Maintenance (SECM)
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 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 Total		
	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)
Recurring Cost																		
Fielding Support	-	-	0.700	-	-	0.580	-	-	0.624	-	-	-	-	-	-	-	-	-
Transportation - HMMWV	-	-	-	2.502	249	0.623	-	-	-	-	-	-	-	-	-	-	-	-
Transportaton - NG SECM	-	-	-	0.339	227	0.077	0.339	227	0.077	-	-	-	-	-	-	-	-	-
Storage (AMG)	-	-	-	9.333	225	2.100	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Recurring Cost	-	-	*0.700*	-	-	*3.380*	-	-	*0.701*	-	-	-	-	-	-	-	-	-
Subtotal: Package Fielding Cost	**-**	**-**	***0.700***	**-**	**-**	***3.380***	**-**	**-**	***0.701***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Support - Engineering Change Proposals Cost																		
Engineering Change Proposals	-	-	0.180	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Support - Engineering Change Proposals Cost	**-**	**-**	***0.180***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Support - Logistics Cost																		
Integrated Logistics Support	-	-	-	-	-	0.268	-	-	0.243	-	-	-	-	-	-	-	-	-
Subtotal: Support - Logistics Cost	**-**	**-**	**-**	**-**	**-**	***0.268***	**-**	**-**	***0.243***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Support - Production Engineering Cost																		
Production Engineering	-	-	0.150	-	-	0.298	-	-	0.207	-	-	-	-	-	-	-	-	-
Subtotal: Support - Production Engineering Cost	**-**	**-**	***0.150***	**-**	**-**	***0.298***	**-**	**-**	***0.207***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Support - Program Management Cost																		
Government Management	-	-	4.147	-	-	1.409	-	-	7.875	-	-	-	-	-	-	-	-	-
Contractor Management	-	-	-	-	-	1.284	-	-	1.805	-	-	-	-	-	-	-	-	-
Subtotal: Support - Program Management Cost	**-**	**-**	***4.147***	**-**	**-**	***2.693***	**-**	**-**	***9.680***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Support - Quality Assurance Cost																		
Quality Assurance	-	-	0.150	-	-	0.434	-	-	0.295	-	-	-	-	-	-	-	-	-
Subtotal: Support - Quality Assurance Cost	**-**	**-**	***0.150***	**-**	**-**	***0.434***	**-**	**-**	***0.295***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Support - System Technical Support (STS) Cost																		
System Technical Support (STS)	-	-	-	-	-	0.209	-	-	-	-	-	-	-	-	-	-	-	-

Exhibit P-5, Cost Analysis: PB 2022 Army		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 45	**P-1 Line Item Number / Title:** 0639G05301 / Mobile Maintenance Equipment Systems	**Item Number / Title [DODIC]:** M61500 / Shop Equipment, Contact Maintenance (SECM)
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 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 Total		
	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	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	-	-	-	-	-	*0.209*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost	-	-	**658.057**	-	-	**85.000**	**342.857**	**350**	**120.000**	-	-	-	-	-	-	-	-	-

Remarks:

NG SECM will replace divesting Heavy SECMs

NG SECM Justification and Award (J&A) has been approved; contract award anticipated for September 2021.

FY21 funds were result of a $120M Congressional Add.

FY20 funds were result of an $85M Congressional Add.

P-40 for FY20 does not show a quantity; correct quantity is 249.

FY20 and FY21 funding includes the price of the HMMWV in addition to the SECM.

Prior Year information in Resource Summary and P-5 cost element section reflects funding for previous ZLIN. FY20 and FY21 information pertains to new ZLIN, Z05910.

Secondary Distribution		FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Army	Quantity	-	350	-	-	-
	Total Obligation Authority	85.000	120.000	-	-	-
Total: Secondary Distribution	**Quantity**	**-**	**350**	**-**	**-**	**-**
	Total Obligation Authority	**85.000**	**120.000**	**-**	**-**	**-**

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2022 Army		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 45	P-1 Line Item Number / Title: 0639G05301 / Mobile Maintenance Equipment Systems	Item Number / Title [DODIC]: M61500 / Shop Equipment, Contact Maintenance (SECM)

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 Gen Shop Equipment Contact Maintenance		2020	AM General / South Bend , IN	SS / FFP	Warren, MI	Sep 2021	Oct 2021	225	150.000	Y		
Next Gen Shop Equipment Contact Maintenance		2021	AM General / South Bend , IN	SS / FFP	Warren, MI	Sep 2021	Oct 2022	325	150.000	Y		
HMMWV - Next Gen Shop Equipment Contact Maintenance		2020	AM General / South Bend , IN	SS / FFP	Warren, MI	May 2020	Dec 2020	225	157.969	Y		
HMMWV - Next Gen Shop Equipment Contact Maintenance		2021	AM General / South Bend , IN	SS / FFP	Warren, MI	Sep 2021	Oct 2022	325	157.966	Y		
HMMWV and Next Gen Shop Equipment Contact Maintenance		2020	AM General / South Bend , IN	SS / FFP	Warren, MI	Sep 2021	Oct 2021	24	350.000	Y		
HMMWV and Next Gen Shop Equipment Contact Maintenance		2021	AM General / South Bend , IN	SS / FFP	Warren, MI	Sep 2021	Oct 2022	25	350.000	Y		

Exhibit P-5, Cost Analysis: PB 2022 Army		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 45	P-1 Line Item Number / Title: 0639G05301 / Mobile Maintenance Equipment Systems	Item Number / Title [DODIC]: M62700 / Shop Equipment, Welding (SEW)
ID Code (A=Service Ready, B=Not Service Ready) : A	MDAP/MAIS Code:	

Resource Summary	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Procurement Quantity *(Units in Each)*	53	35	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	226.937	8.297	-	-	-	-
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	226.937	8.297	-	-	-	-
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**226.937**	**8.297**	**-**	**-**	**-**	**-**
(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)*	4,281.830	237.057	-	-	-	-

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

Cost Elements	Prior Years			FY 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 Total		
	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	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 SEW	-	-	0.001	-	-	0.004	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Recurring Cost	-	-	*0.001*	-	-	*0.004*	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Flyaway Cost	**-**	**-**	***0.001***	**-**	**-**	***0.004***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Hardware Cost																		
Recurring Cost																		
Shop Equipment Welding(†)	145.000	53	7.686	144.600	35	5.061	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Recurring Cost	-	-	*7.686*	-	-	*5.061*	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Hardware Cost	**-**	**-**	***7.686***	**-**	**-**	***5.061***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Package Fielding Cost																		
Recurring Cost																		
Fielding SEW	-	-	1.531	-	-	1.178	-	-	-	-	-	-	-	-	-	-	-	-
Transportation SEW	-	-	0.061	-	-	0.143	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Recurring Cost	-	-	*1.592*	-	-	*1.321*	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Package Fielding Cost	**-**	**-**	***1.592***	**-**	**-**	***1.321***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Support - Engineering Change Proposals Cost																		
Engineering Change Proposals	-	-	3.284	-	-	1.002	-	-	-	-	-	-	-	-	-	-	-	-

Exhibit P-5, Cost Analysis: PB 2022 Army		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 45	**P-1 Line Item Number / Title:** 0639G05301 / Mobile Maintenance Equipment Systems	**Item Number / Title [DODIC]:** M62700 / Shop Equipment, Welding (SEW)
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	

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

Cost Elements	Prior Years			FY 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 Total		
	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	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	-	-	***3.284***	-	-	***1.002***	-	-	-	-	-	-	-	-	-	-	-	-
Support - Logistics Cost																		
Integrated Logistics Support	-	-	-	-	-	0.213	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Support - Logistics Cost	-	-	-	-	-	***0.213***	-	-	-	-	-	-	-	-	-	-	-	-
Support - Production Engineering Cost																		
Production Engineering	-	-	0.170	-	-	0.153	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Support - Production Engineering Cost	-	-	***0.170***	-	-	***0.153***	-	-	-	-	-	-	-	-	-	-	-	-
Support - Program Management Cost																		
Government Management	-	-	214.082	-	-	0.366	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Support - Program Management Cost	-	-	***214.082***	-	-	***0.366***	-	-	-	-	-	-	-	-	-	-	-	-
Support - Quality Assurance Cost																		
Quality Assurance	-	-	0.123	-	-	0.137	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Support - Quality Assurance Cost	-	-	***0.123***	-	-	***0.137***	-	-	-	-	-	-	-	-	-	-	-	-
Support - System Technical Support (STS) Cost																		
System Technical Support (STS)	-	-	-	-	-	0.040	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Support - System Technical Support (STS) Cost	-	-	-	-	-	***0.040***	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost	**4,281.830**	**53**	**226.937**	**237.057**	**35**	**8.297**	-	-	-	-	-	-	-	-	-	-	-	-

Remarks:

FY20 is last year of funding for this program.

FY20 Fielding amount includes support for FY20, FY21, and FY22.

FY20 ECP line reflects potential cost overruns due to this being a cost reimbursable project.

FY20 $85M Congressional add for NG SECM was removed and placed onto its own P-Form.

Exhibit P-5, Cost Analysis: PB 2022 Army		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 45	**P-1 Line Item Number / Title:** 0639G05301 / Mobile Maintenance Equipment Systems	**Item Number / Title [DODIC]:** M62700 / Shop Equipment, Welding (SEW)
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	

Resource Summary and P-5 cost element section reflects erroneous funding for Prior Year.

Secondary Distribution		FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Army	Quantity	24	-	-	-	-
	Total Obligation Authority	4.542	-	-	-	-
ANG	Quantity	9	-	-	-	-
	Total Obligation Authority	2.322	-	-	-	-
AR	Quantity	2	-	-	-	-
	Total Obligation Authority	1.433	-	-	-	-
Total: Secondary Distribution	**Quantity**	**35**	**-**	**-**	**-**	**-**
	Total Obligation Authority	**8.297**	**-**	**-**	**-**	**-**

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2022 Army		**Date:** May 2021
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		2020	JMTC / Rock Island, IL	MIPR	Rock Island, IL	Dec 2020	May 2021	35	144.600	Y		

Exhibit P-40, Budget Line Item Justification: PB 2022 Army	Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 45: Maintenance Equipment	**P-1 Line Item Number / Title:** 9562ML5345 / Items Less Than $5.0M (Maint Eq)

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

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026	To Complete	Total
Procurement Quantity *(Units in Each)*	1,321	575	172	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	135.275	5.608	5.570	-	-	-	-	-	-	-	-	-
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	135.275	5.608	5.570	-	-	-	-	-	-	-	-	-
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**135.275**	**5.608**	**5.570**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
(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)*	102.403	9.753	32.384	-	-	-	-	-	-	-	-	-

Description:

Items Less Than $5 Million (Maintenance Equipment): Acquire and field maintenance support equipment to support combat operations, such as the Machinist Measuring Tool Set (MMTS), Load Bank System Tactical Electric Power (TEP), Refrigeration Tool Kit, Individual and Base, with improved, modernized, standardized, and centralized maintenance Sets, Kits, Outfits, and Tools (SKOT).

The Machinist Measuring Tool Set (MMTS) provides necessary components for general machinist's use. The MMTS facilitates fabrication, repair, and modifications of metallic and nonmetallic parts, and supports metalworking shop activities. The MMTS supplements the Metal Working & Machining Shop Set (MWMSS) by providing an authorized set of hand tools and personal protective equipment necessary for the 91E Soldier to conduct welding and machining operations. The set consists of a tool box and 73 components (i.e. gauges, calipers, rulers, hammer, punches, etc.). Army Acquisition Objective (AAO) for MMTS is 2436.

The Load Bank System Tactical Electric Power (TEP) is a Soldier-portable system required for performing diagnostics, repairs and post verification testing on all small and medium tactical generators of the Army's tactical fleet. The Load Bank System is a critical key maintenance enabler for the Tactical Electric Power (TEP) medium tactical generators (2 to 60 kw) which enable readiness of weapons systems. TEP generator sets provide power to critical life saving operations such as field hospitals that provide medical support to combat wounded soldiers, satellite and land communication systems to communicate with Soldiers in convoys and foot patrols, Tactical Operation Centers and various Soldier life support operations. This equipment allows Soldiers to properly and adequately maintain reliable systems that meet Soldier safety, supportability, and mobility requirements, thereby reducing the risk to the warfighter. The capability that Load Banks provide to load test generator sets is an essential function that Army maintenance units require to support combat and peacetime operations. Army Acquisition Objective (AAO) for Load Bank System Tactical Electric Power (TEP) is 1270.

The Refrigeration Tool Kit (RTK) consists of two kits, the Individual Soldier kit and the Base kit. Maintenance equipment operates in all environments where United States Armed Forces deploy to support Tactical and Sustainment Mobility. Maintenance equipment operates in all environments where United States Armed Forces deploy to support Tactical and Sustainment Mobility (Gap #10). These kits provide the Military Occupational Specialty (MOS) 91C Utilities Equipment Repairer Soldiers all the tools and equipment required to test, maintain and repair every Environmental Control Unit (ECU) on and off the battlefield. Proper functioning ECU's are a critical component in Combat Vehicles and are essential to Command and Control units operating in varying climatic conditions. Proper functioning ECUs also facilitate hospital/medical activities such as laboratory operations, blood banks, aiding mortuary affairs, safe transportation and storage of perishable foods; providing environmentally-controlled conditions for Soldiers: Signal/Command and control equipment and humanitarian support, disaster relief and homeland security deployments. The RTK operates in all environments where United States Armed Forces deploy to support Tactical and Sustainment Mobility. The RTK provides field level maintenance for all Army equipment that requires an ECU. The RTK provides the capability to support maintenance operations as far forward as possible on the battlefield by providing on-system maintenance repairs to Army equipment and/or components, which allows major combat systems to return to the fight rapidly. RTK Individual kit Army Acquisition Objective (AAO) is 4762 and Base kit is 2655.

Exhibit P-40, Budget Line Item Justification: PB 2022 Army	Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 45: Maintenance Equipment	**P-1 Line Item Number / Title:** 9562ML5345 / Items Less Than $5.0M (Maint Eq)

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

Line Item MDAP/MAIS Code: N/A

Secondary Distribution		FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026
Army	Quantity	307	170	-	-	-	-	-	-	-
	Total Obligation Authority	3.376	5.500	-	-	-	-	-	-	-
ANG	Quantity	171	1	-	-	-	-	-	-	-
	Total Obligation Authority	1.513	0.035	-	-	-	-	-	-	-
AR	Quantity	97	1	-	-	-	-	-	-	-
	Total Obligation Authority	0.719	0.035	-	-	-	-	-	-	-
Total: Secondary Distribution	**Quantity**	**575**	**172**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
	Total Obligation Authority	**5.608**	**5.570**	**-**	**-**	**-**	**-**	**-**	**-**	**-**

Justification:
ML5345 has no FY2022 funding request.

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

Exhibit P-40, Budget Line Item Justification: PB 2022 Army	Date: May 2021
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 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026	To Complete	Total
Procurement Quantity *(Units in Each)*	2	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	332.151	-	5.406	-	-	-	-	-	-	-	-	-
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	332.151	-	5.406	-	-	-	-	-	-	-	-	-
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**332.151**	**-**	**5.406**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
(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)*	166,075.500	-	-	-	-	-	-	-	-	-	-	-

Description:

The 120M Heavy Grader enables the Horizontal and Vertical Construction Companies, Engineer Support Companies, Clearance Companies, Asphalt Teams and Quarry Platoons with the capability necessary to conduct engineer missions including grading, shaping, bank sloping, ditching, scarifying, general construction and maintenance of roads and airfields. Self-deployable, the Grader is a critical enabler in the construction, maintenance and repair of roads, airfields, hardstands, drainage and site preparation for basecamps, pipeline installation and river crossings. The Grader is diesel-engine driven, pneumatic tired, with articulated frame steering. It is equipped with a power shift transmission, fully enclosed cab, hydraulically operated blade. The Grader program includes the Type I and the Type IA Air Droppable variant. The Grader is a commercial off the shelf (COTS) program that is considered a Critical Dual Use (CDU) system enabling and supporting Defense Support to Civil Authorities (DSCA) operations. The Army Acquisition Objective (AAO) is 873 (853 Type I & 20 Type IA).

Construction Equipment Virtual Trainers (CEVT) - The CEVT are commercial off the shelf virtual training devices with software modifications for military unique tasks. These simulators enable the United States Army Engineer School with the capability to train Engineer Military Occupational Skill (MOS) to soldiers, while reducing maintenance of actual equipment and fuel costs during traditional training. These simulators provide the Engineer Warfighter with a multitude of training scenarios and continuous hands on training on a variety of construction equipment and in various simulated conditions. Use of CEVT increases skills and competency in the operation of equipment. The Army Acquisition Objective (AAO) for Grader Construction Equipment Virtual Trainers (CEVT) is 44.

Secondary Distribution		FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026
Army	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	-	5.406	-	-	-	-	-	-	-
Total: Secondary Distribution	**Quantity**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
	Total Obligation Authority	**-**	**5.406**	**-**	**-**	**-**	**-**	**-**	**-**	**-**

Justification:
R03800 has no FY2022 funding request.

Exhibit P-40, Budget Line Item Justification: PB 2022 Army		Date: May 2021
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		

IAW Section 1815 of the FY 2008 NDAA this item is necessary for use by the Active and Reserve Components of the Armed Forces for homeland defense missions, domestic emergency responses, and providing military support to civil authorities.

Exhibit P-40, Budget Line Item Justification: PB 2022 Army	Date: May 2021
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 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026	To Complete	Total
Procurement Quantity *(Units in Each)*	11	5	3	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	304.416	3.910	4.188	-	-	-	-	-	-	-	-	-
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	304.416	3.910	4.188	-	-	-	-	-	-	-	-	-
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**304.416**	**3.910**	**4.188**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
(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)*	27,674.182	782.000	1,396.000	-	-	-	-	-	-	-	-	-

Description:

The Heavy Scraper enables the Engineer Support, Horizontal Construction and Vertical Construction Companies with the earth moving capability necessary to construct, maintain and repair airfields, runways, taxiways, and parking aprons, main supply routes, logistical facilities, roads, helipads, motor pools, railroads and ports of entry/debarkation and enhance force infrastructure protection across a range of military operations. It is a self-propelled and articulated framed steering vehicle with an open bowl, two axles, a single diesel engine and pneumatic tires. The 14-18 Cubic Yard, Earth moving Heavy Scraper has the ability to self-load at a reduced production capacity. It provides a hauling and dumping capability to perform efficient tasks in support of earth moving projects. The 14-18 Cubic Yard, Earth moving Heavy Scraper is a commercial off the shelf (COTS) program that provides Army Engineers with essential equipment to perform their road and airfield construction and site preparation missions. The Army Acquisition Objective (AAO) is 668; with 200 Armor Kits.

Construction Equipment Virtual Trainers (CEVT) are commercial off the shelf virtual training devices with software modifications for military unique tasks. These simulators enable the United States Army Engineer School with the capability to train Engineer Military Occupational Skill (MOS) to soldiers, while reducing maintenance of actual equipment and fuel costs during traditional training. These simulators provide the Engineer Warfighter with a multitude of training scenarios and continuous hands on training on a variety of construction equipment and in various simulated conditions. Use of CEVT increases skills and competency in the operation of equipment. The Army Acquisition Objective (AAO) for the Heavy Scraper CEVT is 33.

Secondary Distribution		FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026
Army	Quantity	5	3	-	-	-	-	-	-	-
	Total Obligation Authority	3.910	4.188	-	-	-	-	-	-	-
Total: Secondary Distribution	**Quantity**	**5**	**3**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
	Total Obligation Authority	**3.910**	**4.188**	**-**	**-**	**-**	**-**	**-**	**-**	**-**

Justification:
RA0100 has no FY2022 funding request.

Exhibit P-40, Budget Line Item Justification: PB 2022 Army		**Date:** May 2021
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		

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 2022 Army	Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 50: Construction Equipment	**P-1 Line Item Number / Title:** 4100R04500 / Loaders

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

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	367.853	0.380	7.711	-	-	-	-	-	-	-	-	-
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	367.853	0.380	7.711	-	-	-	-	-	-	-	-	-
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**367.853**	**0.380**	**7.711**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
(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:

Loader, Scoop, 2.5 Cubic Yard Light Type II is a commercial off-the-shelf loader with minor military modifications. The Light Type II Loader is a general purpose scoop loader which is diesel engine driven, four wheel drive, with an articling frame steering. The loader is equipped with a multi-use four-in-one clam shell bucket and a forklift attachment. It also has the capability to accept a Crew Protection Kit in the form of a replaceable armor C-Kit cab for contingency operations. The Light Type II Loader is fielded to Light Brigade Combat Teams, Concrete Teams, Engineer Support Companies, and the Army training base. The Army Acquisition Objective (AAO) for Light Type II Loader is 271.

The CEVT are commercial off the shelf virtual training devices with software modifications for military unique tasks. These simulators enable the United States Army Engineer School with the capability to train Engineer Military Occupational Skill (MOS) to soldiers, while reducing maintenance of actual equipment and fuel costs during traditional training. These simulators provide the Engineer Warfighter with a multitude of training scenarios and continuous hands on training on a variety of construction equipment and in various simulated conditions. Use of CEVT increases skills and competency in the operation of equipment. The Army Acquisition Objective (AAO) for Light Type II Loader Construction Equipment Virtual Trainers (CEVT) is 33.

Loader Scoop, 4.5 and 5.0 Cubic Yard Heavy Type I/II are commercial off-the-shelf loaders with minor military modifications. The Heavy Type I Loader is used for quarry operations and the Type II is used for general construction missions. Each is equipped with a quick couple system for use with a forklift and sweeper attachments. Both loaders are diesel engine driven, four wheel drive, with an articling frame steering. The Heavy Type I/II Loaders have the capability to accept a Crew Protection Kit in the form of a replaceable armor C-Kit cab for contingency operations. The Loaders are fielded to Horizontal Construction Companies, Asphalt and Quarry Teams, Equipment Support Teams, and the Army training base. The AAO for Heavy Loaders is 232.

This program is considered a Critical Dual Use (CDU) system enabling and supporting Defense Support to Civil Authorities (DSCA) operations.

IAW Section 1815 of the FY 2008 NDAA this item is necessary for use by the Active and Reserve Components of the Armed Forces for homeland defense missions, domestic emergency responses, and providing military support to civil authorities.

Secondary Distribution		FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026
Army	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	0.380	7.711	-	-	-	-	-	-	-

Exhibit P-40, Budget Line Item Justification: PB 2022 Army		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 50: Construction Equipment	**P-1 Line Item Number / Title:** 4100R04500 / Loaders	
ID Code (A=Service Ready, B=Not Service Ready): A	**Program Elements for Code B Items:** N/A	**Other Related Program Elements:** N/A
Line Item MDAP/MAIS Code: N/A		

Secondary Distribution		FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026
Total: Secondary Distribution	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	0.380	7.711	-	-	-	-	-	-	-

Justification:
R04500 has not FY2022 funding request.

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

Exhibit P-40, Budget Line Item Justification: PB 2022 Army	Date: May 2021
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 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026	To Complete	Total
Procurement Quantity *(Units in Each)*	19	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	127.609	0.600	12.786	-	-	-	-	-	-	-	-	-
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	127.609	0.600	12.786	-	-	-	-	-	-	-	-	-
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**127.609**	**0.600**	**12.786**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
(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)*	6,716.263	-	-	-	-	-	-	-	-	-	-	-

Description:

The Hydraulic Excavator Type 1 (HYEX-I) enables Combat Engineer units with the capabilities necessary to efficiently fulfill Joint Engineer Mission requirements across all phases of Joint Military Operations and conduct Joint Functions of (1) Movement and Maneuver: Combat Roads and Trails, Gap Crossing, Lines of Communications and/or Supply Routes, Vegetation Removal in Support of IEDD Intermediate Staging Bases, Barriers and Obstacles, Breaching and Clearing Operations; (2) Protection: Hardening; Field Fortification Support; (3) Sustainment: Base Camp Development, Construction and Repair of Infrastructure and Facilities. The HYEX Type 1 enables U.S. Army Engineers with the capabilities to perform precision excavation, land clearing, and lifting and loading various materials and aggregates into dump trucks, concrete mobile mixers, hoppers, and aggregate bins in an expeditious manner. These capabilities also include supporting and operating GP Bucket, Rock Bucket, Hydraulic Hammer, Hydraulic Plate Compactor, Barrier Grapple, Crush-all, and Vegetation Removal Tool. A Commercial-Off-The-Shelf (COTS), the HYEX Type 1 has a Crew Protection Kit, Rifle Mount, NATO Receptacle, JP-8 Fuel Compatibility, and CARC paint. The HYEX is fielded to Horizontal Construction Companies, Vertical Companies, Multi-Role Bridge Companies, and the TRADOC training base. The HYEX Type 1 Army Acquisition Objective (AAO) is 465.

The Construction Equipment Virtual Trainers (CEVT) are commercial off the shelf virtual training devices with software modifications for military unique tasks. These simulators enable the United States Army Engineer School with the capability to train the Engineer Military Occupational Skill (MOS) to soldiers, while reducing maintenance of actual equipment and fuel costs during traditional training. These simulators provide the Engineer Warfighter with a multitude of training scenarios and continuous hands on training on a variety of construction equipment and in various simulated conditions. Use of CEVT increases skills and competency in the operation of equipment. The HYEX Type 1 Army Acquisition Objective (AAO) for Construction Equipment Virtual Trainers (CEVT) is 33.The minimum monthly sustaining rate is 1, economic rate is 5, and maximum rate is 8 per month.

Capabilities of HYEX are as follows for each platform:

Horizontal Construction Company, TOE 05417R000: Provides personnel and equipment to perform Engineering tasks such as clearing and grubbing operations; haul, grade, shape, compact, cut and fill material; emplace culverts; remove snow/ice; construct drainage structures; conduct burrow pit operations; provide dust control operations; construct basecamps, air landing platforms, Forward Area Rearming and refueling Points (FARPS), supply routes, roads, control points, fire bases, tank ditches, Ammunition Supply Points (ASPCs), and field hospital platforms; prepare river crossing sites; and support port repair due to Hydraulic Excavator (HYEX).
Vertical Construction Company, TOE 05418R000: Provides personnel and equipment to perform Engineering tasks such as constructing basecamps, internment facilities; and constructs, repairs, maintains vertical infrastructures.

Exhibit P-40, Budget Line Item Justification: PB 2022 Army		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 50: Construction Equipment	**P-1 Line Item Number / Title:** 4428X01500 / Hydraulic Excavator	
ID Code (A=Service Ready, B=Not Service Ready): A	**Program Elements for Code B Items:** N/A	**Other Related Program Elements:** N/A
Line Item MDAP/MAIS Code: N/A		

Engineer Support Company, TOEs 05419R000/100: Provides personnel and equipment to conduct engineering missions including Rapid Runway Repair (RRR), initial basecamp construction, non-explosive obstacle breaching, non-explosive area clearing, constructing tactical Unmanned Aerial Vehicle (UAV) airfields, helicopter Landing Zones (HLZs), and Assault Landing Zones (ALZs) to Division/Corps and Maneuver BCT.
Multirole Bridge Company, TOE 05473R000: Provides personnel and equipment to transport, assemble, disassemble, retrieve, and maintain all standard U.S. Army bridging systems, (HYEX conducts dredge operations to emplace bridging assets), and to provide transportation of Palletized Loading System (PLS) configured cargo.

Secondary Distribution		FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026
Army	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	0.600	12.786	-	-	-	-	-	-	-
Total: Secondary Distribution	**Quantity**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
	Total Obligation Authority	**0.600**	**12.786**	**-**	**-**	**-**	**-**	**-**	**-**	**-**

Justification:
X01500 has no FY2022 funding request.

Note 1: This program is considered a Critical Dual Use (CDU) system.

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 2022 Army	Date: May 2021
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 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026	To Complete	Total
Procurement Quantity *(Units in Each)*	-	11	11	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	609.584	13.060	12.165	-	-	-	-	-	-	-	-	-
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	609.584	13.060	12.165	-	-	-	-	-	-	-	-	-
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**609.584**	**13.060**	**12.165**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
(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)*	-	1,187.273	1,105.909	-	-	-	-	-	-	-	-	-

Description:

The Family of Dozers includes several platforms. Near-term procurement focuses on modernizing the fleet through T-9 Medium Dozer production with technology insertion to enable autonomous operations in the future.

The T-9 Medium Type I Dozers with winch enables Combat Engineer, Quartermaster and Transportation Companies with the capabilities necessary to construct and maintain the infrastructure required to freely conduct and sustain activities across the range of military operations, including breaching operations, port opening operations and emplacement of standard and nonstandard Army bridging systems for wet and dry gap crossings. These capabilities include operator armor protection, creating obstacles, shaping the terrain and repairing lines of communication resulting in increased mobility, maneuverability, deployability and sustainability. The Army Acquisition Objective (AAO) for the T-9 Medium Dozer Type I with winch is 896.

The T-9 Medium Type II Dozers with ripper enables Engineer and Vertical Construction Companies with the capabilities necessary to conduct horizontal and vertical construction tasks to establish and maintain the infrastructure required to freely conduct and sustain activities across the range of military operations, including breaching operations and emplacement of standard and nonstandard Army bridging systems for wet and dry gap crossings. These capabilities include a technology insert to enable future semi/full autonomous operation, armor protection, creating obstacles, shaping the terrain and repairing lines of communication resulting in increased mobility, maneuverability, deployability and sustainability. The T-9 Dozer enables Cross Functional Teams (CFT) in the Shoot, Communicate & Sustain phase. The T-9 Medium Dozer Type II with ripper AAO is 652.

The T-5 Light Type I Dozers with winch enables Engineer Support Companies, Stryker Brigade Combat Teams and Armored Brigade Combat Teams with the capabilities necessary to effectively conduct horizontal and vertical construction tasks with emphasis on rapid airfield repair and military facilities to establish and maintain the infrastructure required to conduct and sustain activities across the range of military operations. These capabilities include clearing, grubbing, stripping, dozing, rough grading, cutting and filling, loosening of materiel prior to excavation, reducing obstacles and towing in support of general engineering tasks. The T-5 Light Dozer Type I with ripper AAO is 145.

The T-5 Light Type II Dozers with ripper enables Engineer Support Companies, Stryker Brigade Combat Teams and Armored Brigade Combat Teams with the capabilities necessary to conduct horizontal and vertical construction tasks with emphasis on rapid airfield repair, military facilities to establish and maintain the infrastructure required to conduct and sustain activities across the range of military operations. These capabilities include clearing, grubbing, stripping, dozing, rough grading, cutting and filling, loosening of materiel prior to excavation, reducing obstacles and towing in support of general engineering tasks. The T-5 Light Dozer Type II with winch AAO is 159.

Exhibit P-40, Budget Line Item Justification: PB 2022 Army		Date: May 2021
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		

The CEVT supports the National Defense Strategy goal of increased ingenuity in training commercial off the shelf virtual training devices with software modifications for military unique tasks. These simulators enable the United States Army Engineer School with the capability to train Engineer Military Occupational Skill (MOS) to soldiers, while reducing maintenance of actual equipment and fuel costs during traditional training. The simulators provide the Engineer Warfighter with a multitude of training scenarios and continuous hands on training on a variety of construction equipment and in various simulated conditions. Use of CEVT increases skills and competency in the operation of equipment. CEVT also enables for unique training scenarios that are deemed too risky on actual equipment, thereby supporting the National Defense Strategy goal of increased ingenuity in training. The Army Acquisition Objective (AAO) for the Medium Dozer Construction Equipment Virtual Trainers (CEVT) is 33.

Secondary Distribution		FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026
Army	Quantity	11	11	-	-	-	-	-	-	-
	Total Obligation Authority	13.060	12.165	-	-	-	-	-	-	-
Total: Secondary Distribution	**Quantity**	**11**	**11**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
	Total Obligation Authority	**13.060**	**12.165**	**-**	**-**	**-**	**-**	**-**	**-**	**-**

Justification:
M05800 has no FY2022 funding request.

Note: This program is considered a Critical Dual Use (CDU) system.

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 2022 Army	Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 50: Construction Equipment	**P-1 Line Item Number / Title:** 4734R06701 / All Terrain Cranes

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

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026	To Complete	Total
Procurement Quantity *(Units in Each)*	11	8	66	37	-	37	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	114.856	22.403	70.560	112.784	-	112.784	-	-	-	-	-	-
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	114.856	22.403	70.560	112.784	-	112.784	-	-	-	-	-	-
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**114.856**	**22.403**	**70.560**	**112.784**	**-**	**112.784**	**-**	**-**	**-**	**-**	**-**	**-**
(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)*	10,441.455	2,800.375	1,069.091	3,048.216	-	3,048.216	-	-	-	-	-	-

Description:

Family of All Terrain Cranes Type II Heavy Crane (T2HC) - The Type II Heavy Crane (T2HC) with its 50 Ton lift capacity supports the National Defense Strategy (NDS) by providing critical lift missions including overhead lift, container operations, pile driving, protective barrier emplacement and removal, and port opening/operation capabilities which ensures common domains remain open and free. The T2HC supports Large Scale Combat Operation (LSCO) Gap 8 - Division Wet Gap Crossing Lack Bridging and C2 and LSCO Gap 11 - Brigade Combat Teams (BCTs) Lack Mobility and Lethality by enabling Multi Role Bridging Companies (MRBCs) with the ability to assemble, disassemble, and maintain bridges and bridging components for wet and dry gap crossings. The T2HC is capable of maintaining convoy speeds enabling it to keep up with advancing forces. The T2HC provides protective armor for the driver and operator. The Type II Army Acquisition Objective is 39.

Family of All Terrain Cranes Type I - The FOATC Type I Crane supports the NDS by enabling Engineer Construction Companies, Engineer Companies Vertical Construction, and Clearance Companies with the ability to offload critical supplies such as weapons, ammunition, artillery pieces, fuel and water close to the battlefield to support fast moving operations which ensures common domains remain open and free. The Type I Crane provides critical lift missions including overhead lift, container operations, pile driving, protective barrier emplacement and removal, and port opening/operation capabilities, thereby supporting LSCO Gap 11 - BCTs Lack Mobility and Lethality. Type I is capable of maintaining convoy speeds enabling it to keep up with advancing forces. The Type I Army Acquisition Objective is 265.

Military Ocean Terminal Concord (MOTCO) - Acquisition of new Ship to Shore (STS) container gantry cranes at Army's Military Ocean Terminal Concord (MOTCO) re-built Pier 2 provides critical power projection out-loading capability of containerized ammunition to meet required deployment timelines. MOTCO is the main Strategic Seaport for shipping ammunition to the INDOPACOM AOR. The cranes provide the throughput capability for the safe and efficient transshipment of ammunition and explosives within the timelines necessary to meet OPLAN requirements. Cranes directly support Cargo operations mission to safely provide ammunition terminal services to meet the Nation's objectives.

Secondary Distribution		FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026
Army	Quantity	-	26	19	-	19	-	-	-	-
	Total Obligation Authority	-	33.723	95.596	-	95.596	-	-	-	-
ANG	Quantity	4	24	10	-	10	-	-	-	-
	Total Obligation Authority	11.201	22.102	9.733	-	9.733	-	-	-	-
AR	Quantity	4	16	8	-	8	-	-	-	-

Exhibit P-40, Budget Line Item Justification: PB 2022 Army		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 50: Construction Equipment	**P-1 Line Item Number / Title:** 4734R06701 / All Terrain Cranes	
ID Code (A=Service Ready, B=Not Service Ready): A	**Program Elements for Code B Items:** N/A	**Other Related Program Elements:** N/A
Line Item MDAP/MAIS Code: N/A		

Secondary Distribution		FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026
	Total Obligation Authority	11.202	14.735	7.455	-	7.455	-	-	-	-
Total: Secondary Distribution	**Quantity**	**8**	**66**	**37**	**-**	**37**	**-**	**-**	**-**	**-**
	Total Obligation Authority	**22.403**	**70.560**	**112.784**	**-**	**112.784**	**-**	**-**	**-**	**-**

Exhibit P-40, Budget Line Item Justification: PB 2022 Army		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 50: Construction Equipment	**P-1 Line Item Number / Title:** 4734R06701 / All Terrain Cranes	
ID Code (A=Service Ready, B=Not Service Ready): A	**Program Elements for Code B Items:** N/A	**Other Related Program Elements:** N/A
Line Item MDAP/MAIS Code: N/A		

Exhibits Schedule					Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/ MAIS Code	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*
P-5	R06701 / All Terrain Cranes	P-5a	A		11 / 114.856	8 / 22.403	66 / 70.560	37 / 112.784	- / -	37 / 112.784
P-40	**Total Gross/Weapon System Cost**				**11 / 114.856**	**8 / 22.403**	**66 / 70.560**	**37 / 112.784**	**- / -**	**37 / 112.784**

*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:

FY2022 base procurement dollars of $28.679 million will procure 29 Family of All Terrain Crane (FOATC) systems and necessary program support to support base requirements.

FY2022 base procurement dollars of $8.535 million will procure 6 Family of All Terrain Crane (FOATC) systems and necessary program support to support the Enduring Requirement for Operation European Deterrence Initiative.

FY2022 base procurement dollars of $75.570 million procures 2 Military Ocean Terminal Concord (MOTCO) Cranes and necessary support to support base requirements.

Note: The FOATC systems are considered a Critical Dual Use (CDU) system, enabling and supporting Defense Support to Civil Authorities (DSCA) operations (i.e. disaster relief).

Note: Updates to quantities include: FY 2020 quantity is 9 and FY 2021 quantity is 64.

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 2022 Army		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 50	**P-1 Line Item Number / Title:** 4734R06701 / All Terrain Cranes	**Item Number / Title [DODIC]:** R06701 / All Terrain Cranes
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Procurement Quantity *(Units in Each)*	11	8	66	37	-	37
Gross/Weapon System Cost *($ in Millions)*	114.856	22.403	70.560	112.784	-	112.784
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	114.856	22.403	70.560	112.784	-	112.784
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**114.856**	**22.403**	**70.560**	**112.784**	**-**	**112.784**
(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)*	10,441.455	2,800.375	1,069.091	3,048.216	-	3,048.216

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

Cost Elements	Prior Years			FY 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 Total		
	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)
Flyaway Cost																		
Recurring Cost																		
System Engineering/ Program Management	-	-	6.353	-	-	1.056	-	-	1.075	-	-	1.519	-	-	-	-	-	1.519
System Test and Evaluation, Production	-	-	3.131	-	-	0.100	-	-	1.170	-	-	-	-	-	-	-	-	-
Shipping	-	-	4.166	-	-	0.010	-	-	0.650	-	-	0.614	-	-	-	-	-	0.614
Fielding	-	-	4.703	-	-	3.761	-	-	1.133	-	-	1.339	-	-	-	-	-	1.339
Training	-	-	-	-	-	2.890	-	-	0.570	-	-	0.930	-	-	-	-	-	0.930
Data	-	-	-	-	-	0.645	-	-	1.275	-	-	0.862	-	-	-	-	-	0.862
Subtotal: Recurring Cost	-	-	*18.353*	-	-	*8.462*	-	-	*5.873*	-	-	*5.264*	-	-	-	-	-	*5.264*
Subtotal: Flyaway Cost	**-**	**-**	***18.353***	**-**	**-**	***8.462***	**-**	**-**	***5.873***	**-**	**-**	***5.264***	**-**	**-**	**-**	**-**	**-**	***5.264***
Hardware Cost																		
Recurring Cost																		
HARDWARE ALL TERRAIN CRANE TYPE II(†)	1,369.970	33	45.209	1,549.000	9	13.941	-	-	-	1,635.500	2	3.271	-	-	-	1,635.500	2	3.271
HARDWARE ALL TERRAIN CRANE TYPE I/II(†)	-	-	-	-	-	-	1,010.734	64	64.687	-	-	-	-	-	-	-	-	-
Hardware All Terrain Crane Type I(†)	-	-	-	-	-	-	-	-	-	869.061	33	28.679	-	-	-	869.061	33	28.679
Subtotal: Recurring Cost	-	-	*45.209*	-	-	*13.941*	-	-	*64.687*	-	-	*31.950*	-	-	-	-	-	*31.950*
Non Recurring Cost																		

Exhibit P-5, Cost Analysis: PB 2022 Army		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 50	P-1 Line Item Number / Title: 4734R06701 / All Terrain Cranes	Item Number / Title [DODIC]: R06701 / All Terrain Cranes
ID Code (A=Service Ready, B=Not Service Ready) : A	MDAP/MAIS Code:	

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

Cost Elements	Prior Years			FY 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 Total		
	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	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 MOTCO Crane(†)	51,294.000	1	51.294	-	-	-	-	-	-	37,785.000	2	75.570	-	-	-	37,785.000	2	75.570
Subtotal: Non Recurring Cost	-	-	*51.294*	-	-	-	-	-	-	-	-	*75.570*	-	-	-	-	-	*75.570*
Subtotal: Hardware Cost	**-**	**-**	***96.503***	**-**	**-**	***13.941***	**-**	**-**	***64.687***	**-**	**-**	***107.520***	**-**	**-**	**-**	**-**	**-**	***107.520***
Gross/Weapon System Cost	**10,441.455**	**11**	**114.856**	**2,800.375**	**8**	**22.403**	**1,069.091**	**66**	**70.560**	**3,048.216**	**37**	**112.784**	**-**	**-**	**-**	**3,048.216**	**37**	**112.784**

Remarks:
Based on the current execution of the program, FY 2020 quantities should be 9.

Secondary Distribution		FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Army	Quantity	-	26	19	-	19
	Total Obligation Authority	-	33.723	95.596	-	95.596
ANG	Quantity	4	24	10	-	10
	Total Obligation Authority	11.201	22.102	9.733	-	9.733
AR	Quantity	4	16	8	-	8
	Total Obligation Authority	11.202	14.735	7.455	-	7.455
Total: Secondary Distribution	**Quantity**	**8**	**66**	**37**	**-**	**37**
	Total Obligation Authority	**22.403**	**70.560**	**112.784**	**-**	**112.784**

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2022 Army		Date: May 2021
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 ALL TERRAIN CRANE TYPE II		2020	Grove US, LLC / Shady Grove, PA	Option / FFP	WARREN, MI	Feb 2020	Jan 2021	9	1,549.000	N		
HARDWARE ALL TERRAIN CRANE TYPE II		2022	Grove US, LLC / Shady Grove, PA	Option / FFP	Warren, MI	Feb 2022	Jan 2023	2	1,635.500	N		
HARDWARE ALL TERRAIN CRANE TYPE I/II		2021	TBD / TBD	C / FFP	TBD	Feb 2021	Jan 2022	64	1,010.734	N		
Hardware All Terrain Crane Type I		2022	TBD / TBD	C / FFP	TBD	Jan 2022	Jul 2022	33	869.061	N		
Hardware MOTCO Crane		2022	TBD / TBD	TBD	Warren, MI	Feb 2022	Jan 2023	2	37,785.000	N		

Remarks:
The Family of All Terrain Cranes Type I/II is a Commercial-off-the-Shelf (COTS) system.

Based on the current execution of the program, FY 2020 Quantities should be 9 and FY 2021 Quantities should be 64. Quantities will be updated to adjust for actual execution data prior to the submission of the FY 2023 President's Budget.

Exhibit P-40, Budget Line Item Justification: PB 2022 Army	Date: May 2021
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 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026	To Complete	Total
Procurement Quantity *(Units in Each)*	294	53	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	464.708	30.188	3.703	-	-	-	-	-	-	-	-	-
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	464.708	30.188	3.703	-	-	-	-	-	-	-	-	-
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**464.708**	**30.188**	**3.703**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
(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)*	1,580.639	569.585	-	-	-	-	-	-	-	-	-	-

Description:

The High Mobility Engineer Excavator Type I (HMEE-I) is a non-developmental item (NDI). The HMEE-I enables Airborne, Construction and Combat Engineer units with the capabilities necessary to conduct light earthmoving, loading and excavation throughout the area of operations in support of airfield and road repair/construction, preparation of bridge sites, base camp/facility sustainment to executing survivability and major construction tasks. Self-deployable, the HMEE-I is used to repair Lines of Communication resulting in increased force mobility, maneuverability, deploy ability, and sustainability. It is capable of traveling up to 60 mph on primary roads, 25 mph on secondary roads, and maintains pace with the Army's current and future combat systems. The minimum monthly sustaining rate for the HMEE-I is six systems per month. The High Mobility Engineer Excavator (Airborne) (HMEE (A)) is an armored, slightly modified HMEE-I that is air-droppable from a C-17 aircraft. The HMEE (A) provides the same excavation and high travel speed (60 mph) capabilities as the HMEE-I. The HMEE (A) will be fielded to Engineer Support Companies and Infantry Brigade Combat Teams (IBCTs) in Airborne units. The HMEE is a Critical Dual Use (CDU) system enabling and supporting Defense Support to Civil Authorities (DSCA) operations (i.e. Disaster Relief).

The HMEE-I is also the host platform for the Route Clearance Interrogation System (RCIS) enabling the remote detection and limited IED neutralization along routes. HMEE-I incorporated Electrical Over Hydraulic (EOH) upgrades through an Engineering Change Proposal (ECP) which enables remote operations and semi-autonomy of the HMEE. This upgrade requires a revision to the Interactive Electronic Technical Manual (IETM).

The High Mobility Engineer Excavator Type III (HMEE-III) is a Backhoe Loader (BHL) which is a Commercial Off-the-Shelf (COTS) backhoe loader with minor military modifications. The BHL provides the capability to execute general construction missions in the areas of road building, airfield construction, repair and improve road systems, trails and bridges. The BHL also has the capability to accept a Crew Protection Kit in the form of a replaceable armored cab for contingency operations. The BHL is capable of driving up to 25 MPH on improved roads and 7 MPH off-road. The BHL is transported in the air via C-130, C-5, or C-17 aircraft, or across the highway with M916/M870 and M915/M172 truck/trailer combination organic to the unit. The BHL is fielded to Horizontal and Vertical Construction Companies, the Army training base, and other Non-Engineer Units.

The Army Acquisition Objective is: 2,016 (HMEE-I: 1,334/HMEE-III: 682).

Secondary Distribution		FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026
Army	Quantity	9	-	-	-	-	-	-	-	-
	Total Obligation Authority	12.841	3.703	-	-	-	-	-	-	-

Exhibit P-40, Budget Line Item Justification: PB 2022 Army	Date: May 2021
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 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026
ANG	Quantity	24	-	-	-	-	-	-	-	-
	Total Obligation Authority	9.761	-	-	-	-	-	-	-	-
AR	Quantity	20	-	-	-	-	-	-	-	-
	Total Obligation Authority	7.586	-	-	-	-	-	-	-	-
Total: Secondary Distribution	**Quantity**	**53**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
	Total Obligation Authority	**30.188**	**3.703**	**-**	**-**	**-**	**-**	**-**	**-**	**-**

Justification:
R05901 has no FY 2022 funding request.

Note: Based on the current execution of the program, FY 2021 quantities should be 2. Quantities will be updated to adjust for actual execution data prior to the submission of the FY 2023 President's Budget.

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 2022 Army	Date: May 2021
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 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026	To Complete	Total
Procurement Quantity *(Units in Each)*	204	122	26	24	-	24	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	441.135	38.560	9.582	8.694	-	8.694	-	-	-	-	-	-
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	441.135	38.560	9.582	8.694	-	8.694	-	-	-	-	-	-
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**441.135**	**38.560**	**9.582**	**8.694**	**-**	**8.694**	**-**	**-**	**-**	**-**	**-**	**-**
(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)*	2,162.426	316.066	368.538	362.250	-	362.250	-	-	-	-	-	-

Description:

The Construction Equipment (CE) Extended Service Program (ESP) funds the critical recapitalization and Service Life Extension Programs (SLEP) of the Army's complete portfolio of construction equipment, described below. This program enables the Army to gain improved operational readiness and bridge the gap until future opportunities exist for new system procurement by modernizing these vehicle systems through new technology insertion and adding useful life by rebuilding and returning the vehicles to a like-new condition (zero hours and zero miles). Recapitalization and SLEP allows the Army to maintain critical combat engineer and construction equipment capabilities to build and repair roads, airfields, and other infrastructure within a theater of operations and necessary for breaching operations, port opening operations and emplacement of standard and nonstandard Army bridging systems for wet and dry gap crossings, until new system procurement occurs. The SLEP is considered commercial off the shelf (COTS). The following list provides an example of some of the equipment targeted for SLEP:

The Family of Dozers (Tractor, Full-Tracked), which includes the T-5 and T-9 dozers, is a full tracked tractor with medium pull bar and a winch or ripper. The dozers perform earthmoving operations and supports building and maintaining roads, airfields, and shelters.

The Scraper Fleet includes a non-sectionalized and sectionalized Scraper used by Engineer Support Companies for earthmoving maintenance and construction of roads and airfields. This system is Critical Dual-Use Equipment.

The Deployable Universal Combat Earthmover (DEUCE) is a rubber-tracked dozer used in clearing, leveling, and excavation operations. It is C-130 airplane transportable and can be dropped by parachute at low velocity. It can travel at speeds up to 30 miles per hour (MPH) eliminating the typical construction equipment requirement of trailers and additional haul assets. The DEUCE rubber tracks allow construction, loading, and off-loading on airfields and paved roads without damage. No replacement solution provides these capabilities at this time.

The Dual Steel Wheel Roller (DSWR) is a self-propelled vehicle consisting of two steel drums, a diesel engine, and a hydrostatic drive. It is a commercial system used to compact bituminous material in paving operations.

The High Speed Compactor (HSC) is equipped with articulated steering, a dozer blade, a diesel engine, and has segmented impact pads on each of the four drums. It is capable of compacting various soil types in forward or reverse at speeds up to 12 MPH.

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.

Exhibit P-40, Budget Line Item Justification: PB 2022 Army		Date: May 2021
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 High Mobility Engineer Excavator Type I (HMEE-I) is a non-developmental, military unique vehicle that can travel up to 60 mph on primary roads, and up to 25 mph on secondary roads. The high mobility of the HMEE-I is part of the Rapid Tactical Earthmoving force and is used for clearing rubble and debris from routes and airfields; constructing airstrips, providing survivability positions for critical assets like C2, radar and logistics, improving ford sites, supporting limited Combat Support and Combat Service Support missions in the forward area of theater.

The Grader Fleet provides the capability necessary to conduct engineer missions including grading, shaping, bank sloping, ditching, scarifying, general construction and maintenance of roads and airfields. Self-deployable, the Grader is a critical enabler in the construction, maintenance and repair of roads, airfields, hardstands, drainage and site preparation for basecamps, pipeline installation and river crossings. This system is Critical Dual-Use Equipment.

The 613C Water Distributor is a tractor front section as the prime mover and a 2,500 gallon tanker rear section. It is designed to be used in support of road, airfield, berm construction, dust control, and soil stabilization.

The Family of Loaders provides lifting, loading, hauling, digging, and trench operations in support of future domain operations.

Secondary Distribution		FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026
Army	Quantity	24	8	12	-	12	-	-	-	-
	Total Obligation Authority	3.870	4.042	4.134	-	4.134	-	-	-	-
ANG	Quantity	75	9	6	-	6	-	-	-	-
	Total Obligation Authority	26.525	2.770	2.280	-	2.280	-	-	-	-
AR	Quantity	23	9	6	-	6	-	-	-	-
	Total Obligation Authority	8.165	2.770	2.280	-	2.280	-	-	-	-
Total: Secondary Distribution	**Quantity**	**122**	**26**	**24**	**-**	**24**	**-**	**-**	**-**	**-**
	Total Obligation Authority	**38.560**	**9.582**	**8.694**	**-**	**8.694**	**-**	**-**	**-**	**-**

Exhibit P-40, Budget Line Item Justification: PB 2022 Army		Date: May 2021
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 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/ MAIS Code	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*
P-5	M05500 / Const Equip ESP	P-5a	A		204 / 441.135	122 / 38.560	26 / 9.582	24 / 8.694	- / -	24 / 8.694
P-40	**Total Gross/Weapon System Cost**				**204 / 441.135**	**122 / 38.560**	**26 / 9.582**	**24 / 8.694**	**- / -**	**24 / 8.694**

*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 2022 Base procurement dollars in the amount of $8.155 million procures the recapitalization and SLEP of approximately 23 T-9 Medium Dozers and engineering changes and all supporting program costs to support Base requirements.

FY 2022 Base procurement dollars in the amount of $0.539 million procures the recapitalization and SLEP of one 613C Scraper and associated program support to support the Enduring Requirement for Operation European Deterrence Initiative.

Note: Based on the current execution of the program, FY 2020 Base and OCO quantities should be 203. Quantities will be updated to adjust for actual execution data prior to the submission of the FY 2023 President's Budget.

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 2022 Army		Date: May 2021
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 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Procurement Quantity *(Units in Each)*	204	122	26	24	-	24
Gross/Weapon System Cost *($ in Millions)*	441.135	38.560	9.582	8.694	-	8.694
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	441.135	38.560	9.582	8.694	-	8.694
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**441.135**	**38.560**	**9.582**	**8.694**	**-**	**8.694**
(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)*	2,162.426	316.066	368.538	362.250	-	362.250

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

Cost Elements	Prior Years			FY 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 Total		
	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)
Flyaway Cost																		
Recurring Cost																		
Engineering Changes	-	-	11.401	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
System Engineering/ Program Management	-	-	15.522	-	-	0.742	-	-	0.758	-	-	1.000	-	-	-	-	-	1.000
Data	-	-	17.580	-	-	0.273	-	-	0.145	-	-	0.165	-	-	-	-	-	0.165
Fielding	-	-	20.585	-	-	0.139	-	-	-	-	-	-	-	-	-	-	-	-
SLEP Additional Work Efforts (AWE)	-	-	5.481	-	-	3.177	-	-	-	-	-	1.012	-	-	-	-	-	1.012
Subtotal: Recurring Cost	-	-	*70.569*	-	-	*4.331*	-	-	*0.903*	-	-	*2.177*	-	-	-	-	-	*2.177*
Subtotal: Flyaway Cost	**-**	**-**	***70.569***	**-**	**-**	***4.331***	**-**	**-**	***0.903***	**-**	**-**	***2.177***	**-**	**-**	**-**	**-**	**-**	***2.177***
Hardware Cost																		
Recurring Cost																		
High Speed Compactor(†)	177.100	70	12.397	203.525	59	12.008	-	-	-	-	-	-	-	-	-	-	-	-
Vibratory Roller I/III(†)	115.694	72	8.330	141.500	18	2.547	-	-	-	-	-	-	-	-	-	-	-	-
Vibratory Roller II(†)	141.453	214	30.271	156.451	122	19.087	-	-	-	-	-	-	-	-	-	-	-	-
Dual Steel Wheel Roller(†)	141.893	28	3.973	146.750	4	0.587	-	-	-	-	-	-	-	-	-	-	-	-
DEUCE	315.207	193	60.835	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Grader	240.000	442	106.080	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Scraper(†)	300.000	454	136.200	-	-	-	657.000	1	0.657	537.000	1	0.537	-	-	-	537.000	1	0.537

Exhibit P-5, Cost Analysis: PB 2022 Army		Date: May 2021
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 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 Total		
	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)
Dozer (Tractor, Full-Tracked)(†)	260.000	48	12.480	-	-	-	320.880	25	8.022	260.000	23	5.980	-	-	-	260.000	23	5.980
Subtotal: Recurring Cost	-	-	*370.566*	-	-	*34.229*	-	-	*8.679*	-	-	*6.517*	-	-	-	-	-	*6.517*
Subtotal: Hardware Cost	**-**	**-**	***370.566***	**-**	**-**	***34.229***	**-**	**-**	***8.679***	**-**	**-**	***6.517***	**-**	**-**	**-**	**-**	**-**	***6.517***
Gross/Weapon System Cost	**2,162.426**	**204**	**441.135**	**316.066**	**122**	**38.560**	**368.538**	**26**	**9.582**	**362.250**	**24**	**8.694**	**-**	**-**	**-**	**362.250**	**24**	**8.694**

Remarks:

The unit cost of each inducted SLEP asset is variable and dependent on the condition of the base vehicle.

The increase in cost for SLEP Additional Work Efforts (AWE) is due to breaking out the cost for AWE on the P-form as opposed to the cost listed within the overall cost for each system.

Items are COTS, no P-21 required.

Secondary Distribution		FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Army	Quantity	24	8	12	-	12
	Total Obligation Authority	3.870	4.042	4.134	-	4.134
ANG	Quantity	75	9	6	-	6
	Total Obligation Authority	26.525	2.770	2.280	-	2.280
AR	Quantity	23	9	6	-	6
	Total Obligation Authority	8.165	2.770	2.280	-	2.280
Total: Secondary Distribution	**Quantity**	**122**	**26**	**24**	**-**	**24**
	Total Obligation Authority	**38.560**	**9.582**	**8.694**	**-**	**8.694**

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2022 Army		Date: May 2021
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
High Speed Compactor		2020	Caterpillar / Peoria, IL	Option / FFP	Warren, MI	Nov 2019	Feb 2020	59	203.525	N		
Vibratory Roller I/III		2020	Caterpillar / Peoria, IL	Option / FFP	Warren, MI	Nov 2019	May 2020	18	141.500	N		
Vibratory Roller II		2020	Caterpillar / Peoria, IL	Option / FFP	Warren, MI	Nov 2019	May 2020	122	156.451	N		
Dual Steel Wheel Roller		2020	Caterpillar / Peoria, IL	Option / FFP	Warren, MI	Nov 2019	Nov 2020	4	146.750	N		
Scraper	✓	2021	Caterpillar / Peoria, IL	C / FFP	Warren, MI	Sep 2021	Mar 2022	1	657.000	N		
Scraper		2022	TBD / TBD	C / FFP	Warren, MI	Dec 2021	Jun 2022	1	537.000	N		
Dozer (Tractor, Full-Tracked)		2021	Caterpillar / Peoria, IL	C / FFP	Warren, MI	Sep 2021	Sep 2022	25	320.880	N		
Dozer (Tractor, Full-Tracked)		2022	Caterpillar / Peoria, IL	C / FFP	Warren, MI	Dec 2021	Dec 2022	23	260.000	N		

Remarks:
This is a Commercial-Off-the-Shelf (COTS) Program.

Exhibit P-40, Budget Line Item Justification: PB 2022 Army	Date: May 2021
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 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026	To Complete	Total
Procurement Quantity *(Units in Each)*	59	14	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	150.774	5.331	-	-	-	-	-	-	-	-	-	-
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	150.774	5.331	-	-	-	-	-	-	-	-	-	-
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**150.774**	**5.331**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
(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)*	2,555.492	380.786	-	-	-	-	-	-	-	-	-	-

Description:

The Construction Equipment (CE) Items less than $5.0M line supports various Programs of Record (POR) as well as ancillary equipment and attachments, where the acquisition cost for each line item is below $5.0 million. These programs provide the enhanced capabilities to the current force enabling them to execute their expeditionary mission to include:

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) - The PAP enables the Engineer Asphalt Team with the capability necessary for rapid route remediation and preventing IED emplacement in potholes. A highly mobile, self-contained, spray-injection Asphalt Patcher built on an M1077 flat rack, the PAP mixes aggregate with asphalt emulsion and dispenses the mixture into a repair area for a patch that is traffic ready within 20 minutes. Army Acquisition Objective (AAO) is 7 systems.
--Self-Propelled Concrete Saw (SPCS) - The SPCS enables Engineer Support Companies (Asphalt Teams, Concrete Sections, and Engineer Utilities Detachments) with the capability necessary to conduct rapid route remediation and rapid runway repair by quickly and effectively cutting out a damaged area of road or runway during the repair process and paving construction projects. The SPCS includes a heavy duty water supply hose with couplings capable of interfacing and operating with the Engineer Mission Module-Water Distributor (EMM-WD) to allow for cooling of the saw blade during use. AAO is 65 systems.
--Portable Concrete Mixer (PCM) is a trailer mounted, fully functional, and independently powered concrete mixer capable of continuous operation with a minimum concrete production capacity of 2 cubic yards. AAO is 268 systems.
--Machine Powered Mowing System (MPMS) - An attachment mounted on the Heavy Type II Loader, the MPMS enables Horizontal Construction Platoons with the capability necessary to: (1) improve humanitarian conditions through the use of the ditching attachment to create improved water drainage paths and (2) clear routes and conduct improvised explosive device detection missions through the removal of ground cover, foliage, grass, weeds, and underbrush to prevent adversaries from placing improvised explosive devices near roadsides. AAO is 66 systems.

2. Water Well Drill System (WWDS) - The WWDS enables Well Drilling Teams within Army National Guard units with the capability necessary to drill and cast two complete water well holes up to 2000ft. deep. The system enables the construction of new wells and repair of existing wells providing improved hygiene and sanitation for camps, facilities and local populations and providing the ability before, during and after combat operations to effect institutional and infrastructural improvements to strengthen selected urban subsystems identified as essential to the continued functioning of the urban system. WWDS is capable of installing casings, screens, pump and developing wells to provide water at the well head. WWDS can transport up to 2500 gallons of potable water and is capable of sustaining 24-hour operations. AAO is 8 systems.

3. Family of Utility Service Equipment (FUSE) - The FUSE is a commercial-off-the-shelf (COTS) system that provides Prime Power units the ability to generate and distribute prime electrical power in support of the warfighter support operations. System consists of four parts: 1) Aerial Lift Truck 2) Derrick Digger Truck 3) Pole/Reel Trailer 4) Cable Trailer. AAO is 25 systems.

Exhibit P-40, Budget Line Item Justification: PB 2022 Army	Date: May 2021
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 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026
Army	Quantity	14	-	-	-	-	-	-	-	-
	Total Obligation Authority	5.331	-	-	-	-	-	-	-	-
Total: Secondary Distribution	**Quantity**	**14**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
	Total Obligation Authority	**5.331**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**

Justification:
ML5350 has no FY 2022 funding request.

Note: Based on the current execution of the program, FY 2020 quantities should be 56. Quantities will be updated to adjust for actual execution data prior to the submission of the FY 2023 President's Budget.

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 2022 Army	Date: May 2021
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 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026	To Complete	Total
Procurement Quantity *(Units in Each)*	2	2	4	5	-	5	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	94.244	42.232	40.910	44.409	-	44.409	-	-	-	-	-	-
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	94.244	42.232	40.910	44.409	-	44.409	-	-	-	-	-	-
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**94.244**	**42.232**	**40.910**	**44.409**	**-**	**44.409**	**-**	**-**	**-**	**-**	**-**	**-**
(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)*	47,122.000	21,116.000	10,227.500	8,881.800	-	8,881.800	-	-	-	-	-	-

Description:

CAPABILITY:
The Army Watercraft Systems (AWS) support Multi-Domain Operations (MDO) and Joint All Domain Operations (JADO) by providing the Combatant Commander with a Dynamic Force Repositioning (DFR) organic waterborne lift capability that can provide Dispersed Logistics to move and maneuver tailored forces, combat ready troops, platforms, equipment, and supply bulk fuel and water across the full spectrum of operations. AWS mitigates anti-access/area denial (A2/AD) threats by providing access to shallow coastal waters, rivers, in narrow inland waterways in support of dispersed force elements in austere environments and where mature ports or road networks are unavailable.

FUNDING:
In general, all Army Watercraft funding supports initiatives to enhance the seaworthiness, safety, and survivability while increasing the lethality, tactical mobility, and operational capability of the Army Mariner to preserve the Combatant Commanders requirement of "freedom of seas" access in all areas of the world particularly the littorals, to support maneuver operations in all Areas of Responsibility.

This Army Watercraft Extended Service Program (ESP) budget line funds three critical modernization efforts, which includes the Landing Craft Utility 2000 (LCU) Service Life Extension Program (SLEP), the Modular Causeway System (MCS) SLEP, and the Modernized Integrated Bridge System (MIBS). Timing of AWS modernization is critical to overall AWS Transformation Strategy in parallel with INDOPACOM force structure and stationing considerations.

The SLEP and MIBS efforts will significantly improve fleet age, operational readiness, configuration control and overall fleet management issues that challenge the fleet today. Each modernization effort has a different unit cost due to the varying complexity of the modernization package. All modernization efforts will improve vessel operational readiness by improving configuration control with procurement of Technical Data Package (TDP) w/ full Government rights, which enable the provisioning of critical sub-system components, updated Technical Manuals. Procurement of the TDP also allows the Army to execute a "build to print" strategy on the Army Watercraft Multi-Award Task Order (MATO) contract, which will save the Army a significant amount of funding over the course of the modernization efforts. All modernization efforts are critical enablers for the success Army's Watercraft Systems Transformation Strategy (AWSTS) and continued fulfillment of the AWS Title 10 mission.

Dual Funding: SLEP efforts are funded with Other Procurement Authority (OPA) appropriations and the installation occurs in conjunction with each vessels planned On-Condition Cyclic Maintenance (OCCM) sustainment maintenance, which is funded with Operations and Maintenance Appropriations (OMA). Application of the SLEP packages occurs in a shipyard during the vessels planned OCCM, which saves the Army a significant amount of money and limits unit disruptions. MIBS efforts are funded with Other Procurement Authority (OPA) appropriations and the installation is accomplish pier-side at the vessel stationing location by mobile installation teams. Application pier-side limits unit disruptions and allows for a 2 year install without movement of vessels.

Exhibit P-40, Budget Line Item Justification: PB 2022 Army		Date: May 2021
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		

MODERNIZATION:
SLEP efforts procure a Technical Data Package (TDP) w/ full government rights, upgraded Maritime Training Systems, and authenticated logistics technical manuals. All of the above will significantly improve fleet age, configuration management, safety of operations, Army Mariner training, part availability and operational readiness, which is all critical to the success of the AWSTS.

LCU SLEP: The LCU 2000 provides intra-theater movement of tailored forces, combat ready troops, platforms, equipment, and supply bulk fuel and water across the full spectrum of operations; to include containerized, break-bulk, and roll-on roll-off (RO/RO) cargo. 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 originally designed for a 25 year Economic Useful Life (EUL) and the fleet was fielded in 1990-1992 (30-32 years of age as of 2020).

LCU SLEP extends the Economic Useful Life (EUL) of the LCU 2000 until the Army can afford to procure a suitable replacement vessel. The LCU SLEP package includes application of Engineering Change Proposals (ECPs) and modifications, such as engine repower, power generation, force protection, habitability and critical system configuration reset. The LCU SLEP effort is broken into two phases; Phase I results in the delivery of 3 production vessels, TDP, upgraded maritime training systems, and authenticated technical manuals. Delivery of the phase I TDP enables execution of the Phase II "build to print" strategy of 14 production vessels on the Watercraft MATO contract.

MCS SLEP: The Modular Causeway System (MCS) is a critical force enabler that enables the Army to expedite and increase throughput when executing JLOTS and other movement and maneuver of tailored forces, troops, platforms, equipment, and supply bulk fuel and water across the full spectrum of operations. The MCS is comprised of 10 total systems; 6 Modular Warping Tugs (MWT), 1 Causeway Ferry (CF), 2 Roll-On Roll-Off Discharge Facilities (RRDF), and 1 Floating Causeway (FC). Specifically, 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 MCS System was originally designed for a 15 year EUL and the fleet was fielded in 2004 (15 years of age as of 2020).

MCS SLEP extends the EUL of the Modular Warping Tug (MWT) and Causeway Ferry (CF) systems until the Army can afford to procure a suitable replacement system. The MCS SLEP package includes application of Engineering Change Proposals (ECPs) and modifications, such as engine repower, winch repower, and electrical system upgrades. The MCS TDP and first prototype vessel were developed with AWS RDT&E funding with full government rights to enable the execution of a "build to print" strategy for 20 production vessels (17 MWT and 3 CF) on the Watercraft MATO contract.

MIBS: The Army Watercraft Systems heavy lift capability is provided by the Logistics Support Vessel (LSV) and LCU fleets. The communication suites for the LSV and LCU have significant obsolescence, readiness and interoperability challenges due to deferred modernization investments for higher Army priorities over time. Interoperability is the largest capability gap with today's LSV and LCU communications suites.

MIBS extends the EUL of the LSV and LCU systems by applying a technology refresh to the communication suites to ensure safety of operation, joint interoperability and improve operational readiness. MIBS package includes application of Engineering Change Proposals (ECPs) and modifications to reset the baseline configuration for both the LSV and LCU communication suites. MIBS results in the delivery of the TDP w/ full government rights, technology refresh installation on 8 LSV and 17 LCUs (25 total), upgraded maritime training systems, and authenticated technical manuals. Delivery of the LCU TDP with full government rights enables execution of "build to print" pier side installation strategy for all 25 vessels (8 LSV and 17 LCU). Since maritime communications technology changes rapidly, MIBS technology refreshes are planned in 4 year cycles (2 years ECP development and 2 year installations).

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 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026
Army	Quantity	2	4	5	-	5	-	-	-	-
	Total Obligation Authority	42.232	40.910	44.409	-	44.409	-	-	-	-

Exhibit P-40, Budget Line Item Justification: PB 2022 Army			Date: May 2021
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			

Secondary Distribution		FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026
Total: Secondary Distribution	Quantity	2	4	5	-	5	-	-	-	-
	Total Obligation Authority	42.232	40.910	44.409	-	44.409	-	-	-	-

Exhibit P-40, Budget Line Item Justification: PB 2022 Army	Date: May 2021
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 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/ MAIS Code	Quantity / Total Cost (Each) I ($ M)	Quantity / Total Cost (Each) I ($ M)	Quantity / Total Cost (Each) I ($ M)	Quantity / Total Cost (Each) I ($ M)	Quantity / Total Cost (Each) I ($ M)	Quantity / Total Cost (Each) I ($ M)
P-5	M11101 / Army Watercraft Esp	P-5a, P-21			2 / 94.244	2 / 42.232	4 / 40.910	5 / 44.409	- / -	5 / 44.409
P-40	**Total Gross/Weapon System Cost**				**2 / 94.244**	**2 / 42.232**	**4 / 40.910**	**5 / 44.409**	**- / -**	**5 / 44.409**

*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 2022 Base procurement dollars of $17.722 million will support Contractor Logistic Support for previously fielded LCU Vessel, Technical Manual development for the LCU, production and fielding for 1 Modular Warping Tug (MWT) SLEP, and the production and fielding of the Modernized Integrated Bridge Systems (MIBS) effort on the LCU-2000 and LSV.

FY 2022 Base procurement dollars of $26.687 million will support Pacific Deterrence Initiative (PDI) requirement procurement of production and fielding for 1 Landing Craft Utility 2000 (LCU-2000) SLEP vessel, production and fielding for 3 Modular Warping Tug (MWT) SLEP and the production and fielding of the Modernized Integrated Bridge Systems (MIBS) effort on the LCU-2000 and LSV.

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 2022 Army		Date: May 2021
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 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Procurement Quantity *(Units in Each)*	2	2	4	5	-	5
Gross/Weapon System Cost *($ in Millions)*	94.244	42.232	40.910	44.409	-	44.409
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	94.244	42.232	40.910	44.409	-	44.409
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**94.244**	**42.232**	**40.910**	**44.409**	**-**	**44.409**
(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)*	47,122.000	21,116.000	10,227.500	8,881.800	-	8,881.800

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

Cost Elements	Prior Years			FY 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 Total		
	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	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)(†)	22,265.667	3	66.797	12,042.500	2	24.085	12,449.000	2	24.898	14,481.000	1	14.481	-	-	-	14,481.000	1	14.481
LCU Technical Manuals and Spares	-	-	8.375	-	-	1.131	-	-	1.638	-	-	1.106	-	-	-	-	-	1.106
LCU SLEP Contractor Logistics Support (CLS)	-	-	-	-	-	-	-	-	-	-	-	6.157	-	-	-	-	-	6.157
New Equipment Training (NET)	-	-	2.154	-	-	0.761	-	-	0.821	-	-	-	-	-	-	-	-	-
SLEP Vessels (MCS)(†)	-	-	-	-	-	-	1,480.500	2	2.961	1,539.750	4	6.159	-	-	-	1,539.750	4	6.159
MCS SLEP Fielding & Transportation	-	-	-	-	-	-	-	-	-	-	-	0.331	-	-	-	-	-	0.331
MCS SLEP New Equipment Training (NET)	-	-	-	-	-	-	-	-	-	-	-	0.101	-	-	-	-	-	0.101
MIBS Vessels (LCU-2000)	-	-	-	-	-	1.120	-	-	7.898	-	-	13.372	-	-	-	-	-	13.372
Program Management/Matrix Support	-	-	12.538	-	-	2.676	-	-	2.694	-	-	2.702	-	-	-	-	-	2.702
Subtotal: Recurring Cost	-	-	*89.864*	-	-	*29.773*	-	-	*40.910*	-	-	*44.409*	-	-	-	-	-	*44.409*
Non Recurring Cost																		
MCS Logistics	-	-	-	-	-	7.020	-	-	-	-	-	-	-	-	-	-	-	-

Exhibit P-5, Cost Analysis: PB 2022 Army		Date: May 2021
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:**	

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

Cost Elements	Prior Years			FY 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 Total		
	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)
MIBS Logistics (LCU-2000)	-	-	-	-	-	3.159	-	-	-	-	-	-	-	-	-	-	-	-
MIBS Engineering (LCU-2000)	-	-	4.380	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MIBS Engineering (LSV)	-	-	-	-	-	2.280	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Non Recurring Cost	-	-	*4.380*	-	-	*12.459*	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Flyaway Cost	**-**	**-**	***94.244***	**-**	**-**	***42.232***	**-**	**-**	***40.910***	**-**	**-**	***44.409***	**-**	**-**	**-**	**-**	**-**	***44.409***
Gross/Weapon System Cost	**47,122.000**	**2**	**94.244**	**21,116.000**	**2**	**42.232**	**10,227.500**	**4**	**40.910**	**8,881.800**	**5**	**44.409**	**-**	**-**	**-**	**8,881.800**	**5**	**44.409**

Remarks:
Clarification: Quantities listed above reflect LCU SLEP and MCS SLEP only. Although MIBS is a significant modernization effort, it is not an official program of record and does not meeting the quantity reporting thresholds. MIBS technology refresh is critical to addressing the Joint Interoperability capability gap in line with the Army Watercraft Systems Transformation Strategy (AWSTS).

Secondary Distribution		FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Army	Quantity	2	4	5	-	5
	Total Obligation Authority	42.232	40.910	44.409	-	44.409
Total: Secondary Distribution	**Quantity**	**2**	**4**	**5**	**-**	**5**
	Total Obligation Authority	**42.232**	**40.910**	**44.409**	**-**	**44.409**

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2022 Army		Date: May 2021
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)(†)		2021	TBD 2021 / TBD	C / FFP	Warren, MI	Jan 2021	Jun 2021	2	12,449.000	N		
SLEP Vessels (LCU-2000)(†)		2022	TBD 2022 / TBD	C / FFP	Warren, MI	Jan 2022	Jun 2022	1	14,481.000	N		
SLEP Vessels (MCS)(†)		2021	TBD 2021 / TBD	C / FFP	Warren, MI	Mar 2021	Aug 2021	2	1,480.500	N		
SLEP Vessels (MCS)(†)		2022	TBD 2022 / TBD	C / FFP	Warren, MI	Jan 2022	Apr 2022	4	1,539.750	N		

(†) indicates the presence of a P-21

Exhibit P-21, Production Schedule: PB 2022 Army		**Date:** May 2021
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 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	
SLEP Vessels (LCU-2000)																															
Prior Years Deliveries: 3																															
	1	2021	ARMY	2	0	2				A -	-	-	-	-	1	-	1														0
	2	2022	ARMY	1	0	1																A -	-	-	-	-	1				0
SLEP Vessels (MCS)																															
	3	2021	ARMY	2	0	2						A -	-	-	-	-	2														0
	4	2022	ARMY	4	0	4																A -	-	-	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 2022 Army		Date: May 2021
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 2022	1-8-5 For 2022	MAX For 2022	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 2021 - TBD	1	2	2	0	4	5	9	0	6	5	11
2	TBD 2022 - TBD	1	1	1	0	4	5	9	0	0	0	0
3	TBD 2021 - TBD	1	2	2	0	4	5	9	0	6	5	11
4	TBD 2022 - TBD	1	4	4	0	4	3	7	0	4	5	9

Remarks:
COVID19 IMPACTS:
The shipbuilding industry is largely driven by commercial shipping customers. Army Watercraft utilizes several small business and small to medium sized shipyards, which are more vulnerable to shifts in COVID safety protocols and uncertainty. We are currently experiencing an average of 25-30% absenteeism rate at the shipyards due to COVID19. In addition, we have seen a decrease in shipyard competition, an increase in sub-contractor proposals due to COVID travel restrictions and overall increase in new production proposals. To date, we have been able to mitigate the impact to the Army Watercraft Systems Transformation Strategy (AWSTS), but it is inconclusive how COVID19 will impact the shipbuilding industry in the foreseeable future and what effect that will have on budget planning.

COVID19: Although the Army has procured the Technical Data Package (TDP) to enable a "build to print" modernization strategy that saves the Army money, it is subject to changing market conditions. The COVID19 pandemic is driving significant cost increases across the shipbuilding industry (absenteeism, demand for skilled trades, safety protocols, and reliance on sub-contractor TDY).

In FY20, the Army experienced significant LCU SLEP cost increases due to COVID19. The Army was able to realign additional resources to fund production of 2 vessels and maintain the AWS modernization schedule. Although vaccinations could potentially mitigate some risks, the current fiscal landscape of the small-medium shipbuilding industry has shown a decrease in available competition and incremental costs over time due to current strain on financial solvency of the industry. Taking this into consideration, the Army has revised its cost estimates for all three modernization efforts starting in FY22, which has impacted the unit costs for the LCU and MCS SLEP efforts.

Should market pricing exceed available funds in FY21, the Army will look internally for additional resource or build to budget, which would result in a production quantity reduction. The Army will continue to monitor this situation closely.

"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 2022 Army	Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 55: Rail Float Containerization Equipment	**P-1 Line Item Number / Title:** 8211R01001 / Maneuver Support Vessel (MSV)

ID Code (A=Service Ready, B=Not Service Ready):	**Program Elements for Code B Items:** N/A	**Other Related Program Elements:** 0604804A

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	2	2	-	2	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	-	14.185	76.576	76.660	-	76.660	-	-	-	-	-	-
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	-	14.185	76.576	76.660	-	76.660	-	-	-	-	-	-
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**-**	**14.185**	**76.576**	**76.660**	**-**	**76.660**	**-**	**-**	**-**	**-**	**-**	**-**
(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)*	-	-	38,288.000	38,330.000	-	38,330.000	-	-	-	-	-	-

Description:

The Army Watercraft Systems (AWS) provide a family of Army Ship to Shore (S2S) connectors that support Dynamic Force Repositioning (DFR) by providing the Combatant, Multi-Domain Operations (MDO) and Joint All Domain Operations (JADO) Commanders with the ability to access multiple entry points via littorals and inland waterways (waterborne corridor) IOT sustain forces within an anti-access/area denial (A2/AD) bubble. The family of S2S connectors include the Maneuver Support Vessel (Light) and the Ship to Shore / Over the Shore Logistics Vessel (SSLV), which are the Army's first digital architecture vessels (with improved draft, speed, and payload) and critical modernization efforts in support of the Army's Watercraft Systems Transformation Strategy (AWSTS). S2S connectors will provide Surge, Precision and Dispersed Logistics to move and maneuver tailored forces, combat ready troops, platforms, equipment, and supply bulk fuel and water across the full spectrum of operations. S2S connectors mitigate A2/AD threats by providing access to shallow coastal waters, rivers, in narrow inland waterways in support of dispersed force elements in austere environments and where mature ports or road networks are unavailable.

The MSV-L provides upgraded capabilities such as higher operational speed, reduced draft and increased payload to support expeditionary movement and maneuver of tailored forces and combat power to mitigate the Anti-Access/Area Denial (A2/AD) operational environment. Capable of delivering a combat configured Abrams, Stryker or Bradley Fighting Vehicles along with critical sustainment missions including delivery of bulk food, water, fuel, and ammunition. MSV(L) is the first modernization program which will displace the Army's aging Landing Craft Mechanized-8 (LCM-8) class of vessels. The LCM-8 does not have the speed, functional draft (shallow water capability), interoperability, or maneuver capability to move today's Army Maneuver Platforms.

The MSV(L) completes the Engineering and Manufacturing Development (EMD) phase in FY21 and delivers the single full scale prototype. The prototype will undergo contractor and government testing, which will inform the updated Joint Capabilities Integration Development System (JCIDS) requirements documentation at MS C. Following successful prototype testing, JCIDS requirements documentation approval and MS C approval, the Milestone Decision Authority (MDA) will authorize the start of the Production and Deployment (P&D) phase.

In order to meet the accelerated MSV(L) development, get this much needed capability into the hands of our soldiers sooner, and mitigate schedule risk, the Milestone Decision Authority (MDA) has authorized the execution of FY20/FY21 Other Procurement Army (OPA) funding (PE 8211R01001) ahead of milestone C for Logistics Development Products (LPD), statutory and regulatory documentation in support of milestone C, and Maritime Intermodal Training System (MITS) training development. Upon successful completion of 1QFY21 MSV(L) program review and assessment of program risk, the MDA intends to authorize the Early Order Activities (EOA) IAW DoDI 5000.02, Section 5. (PROCEDURES), paragraph d.9. (g)2. [p.28] for the Original Equipment Manufacturer (OEM) to order low risk materials (engines, generators, and aluminum with associated labor costs for material handling). EOA minimizes the production gap between the prototype and LRIP vessels. EOA is planned to be exercised in 2QFY21 and MS C in 4QFY21 (LRIP start authorization).

FY22 Funds will purchase remaining LRIP vessels and associated GFE, SEPM, Testing, Training, and Fielding.

Exhibit P-40, Budget Line Item Justification: PB 2022 Army	Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 55: Rail Float Containerization Equipment	**P-1 Line Item Number / Title:** 8211R01001 / Maneuver Support Vessel (MSV)

ID Code (A=Service Ready, B=Not Service Ready):	Program Elements for Code B Items: N/A	Other Related Program Elements: 0604804A

Line Item MDAP/MAIS Code: N/A

Secondary Distribution		FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026
Army	Quantity	-	2	2	-	2	-	-	-	-
	Total Obligation Authority	14.185	76.576	76.660	-	76.660	-	-	-	-
Total: Secondary Distribution	**Quantity**	**-**	**2**	**2**	**-**	**2**	**-**	**-**	**-**	**-**
	Total Obligation Authority	**14.185**	**76.576**	**76.660**	**-**	**76.660**	**-**	**-**	**-**	**-**

Exhibit P-40, Budget Line Item Justification: PB 2022 Army		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 55: Rail Float Containerization Equipment	**P-1 Line Item Number / Title:** 8211R01001 / Maneuver Support Vessel (MSV)	
ID Code (A=Service Ready, B=Not Service Ready):	**Program Elements for Code B Items:** N/A	**Other Related Program Elements:** 0604804A
Line Item MDAP/MAIS Code: N/A		

Exhibits Schedule					Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/ MAIS Code	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*
P-5	R03050 / Maneuver Support Vessel (Light) (MSV-L)	P-5a, P-21			- / -	- / 14.185	2 / 76.576	2 / 76.660	- / -	2 / 76.660
P-40	**Total Gross/Weapon System Cost**				**- / -**	**- / 14.185**	**2 / 76.576**	**2 / 76.660**	**- / -**	**2 / 76.660**

*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:
FY22 base procurement of $76.660 million dollars will support requirement of two (2) LRIP Vessels, Government Furnished Equipment (GFE), engineering changes, prime contractor personnel and test support, data development (technical data, technical manuals, and provisioning) and government personnel and test support. The two LRIP vessels are required for Production Verification Testing (PVT), Reliability, Availability and Maintainability (RAM) testing, and Operational Testing.

The Maneuver Support Vessel (Light) - MSV(L) is the first modernization program which will displace the Army's aging Landing Craft Mechanized-8 (LCM-8) class of vessels. The LCM-8 does not have the speed, functional draft (shallow water capability), interoperability, or maneuver capability to move today's Army Maneuver Platforms.

The MSV-L provides upgraded capabilities such as higher operational speed, reduced draft and increased payload to support expeditionary movement and maneuver of tailored forces and combat power to mitigate the Anti-Access/Area Denial (A2/AD) operational environment. Capable of delivering a combat configured Abrams, Stryker or Bradley Fighting Vehicles along with critical sustainment missions including delivery of bulk food, water, fuel, and ammunition.

Exhibit P-5, Cost Analysis: PB 2022 Army		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 55	**P-1 Line Item Number / Title:** 8211R01001 / Maneuver Support Vessel (MSV)	**Item Number / Title [DODIC]:** R03050 / Maneuver Support Vessel (Light) (MSV-L)
ID Code (A=Service Ready, B=Not Service Ready) :	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Procurement Quantity *(Units in Each)*	-	-	2	2	-	2
Gross/Weapon System Cost *($ in Millions)*	-	14.185	76.576	76.660	-	76.660
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	-	14.185	76.576	76.660	-	76.660
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**-**	**14.185**	**76.576**	**76.660**	**-**	**76.660**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)						
Initial Spares *($ in Millions)*	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Thousands)*	-	-	38,288.000	38,330.000	-	38,330.000

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

Cost Elements	Prior Years			FY 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 Total		
	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)
Flyaway Cost																		
Recurring Cost																		
Recurring Production - Vessels(†)	-	-	-	-	-	-	21,020.000	2	42.040	21,055.000	2	42.110	-	-	-	21,055.000	2	42.110
Government Furnished Equipment	-	-	-	-	-	-	-	-	-	-	-	3.100	-	-	-	-	-	3.100
Engineering Changes	-	-	-	-	-	-	-	-	-	-	-	1.840	-	-	-	-	-	1.840
Technical Publications	-	-	-	-	-	1.747	-	-	15.597	-	-	8.353	-	-	-	-	-	8.353
Program Management: Contractor / Matrix	-	-	-	-	-	4.236	-	-	13.730	-	-	15.077	-	-	-	-	-	15.077
First Destination Transportation	-	-	-	-	-	-	-	-	1.920	-	-	2.170	-	-	-	-	-	2.170
Subtotal: Recurring Cost	-	-	-	-	-	*5.983*	-	-	*73.287*	-	-	*72.650*	-	-	-	-	-	*72.650*
Non Recurring Cost																		
Test and Evaluation	-	-	-	-	-	0.013	-	-	1.419	-	-	2.520	-	-	-	-	-	2.520
Subtotal: Non Recurring Cost	-	-	-	-	-	*0.013*	-	-	*1.419*	-	-	*2.520*	-	-	-	-	-	*2.520*
Subtotal: Flyaway Cost	**-**	**-**	**-**	**-**	**-**	***5.996***	**-**	**-**	***74.706***	**-**	**-**	***75.170***	**-**	**-**	**-**	**-**	**-**	***75.170***
Support - Training Cost																		
Equipment	-	-	-	-	-	8.189	-	-	1.870	-	-	1.490	-	-	-	-	-	1.490
Subtotal: Support - Training Cost	**-**	**-**	**-**	**-**	**-**	***8.189***	**-**	**-**	***1.870***	**-**	**-**	***1.490***	**-**	**-**	**-**	**-**	**-**	***1.490***

Exhibit P-5, Cost Analysis: PB 2022 Army		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 55	**P-1 Line Item Number / Title:** 8211R01001 / Maneuver Support Vessel (MSV)	**Item Number / Title [DODIC]:** R03050 / Maneuver Support Vessel (Light) (MSV-L)
ID Code (A=Service Ready, B=Not Service Ready) :	**MDAP/MAIS Code:**	

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

Cost Elements	Prior Years			FY 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 Total		
	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	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	-	-	-	-	-	14.185	38,288.000	2	76.576	38,330.000	2	76.660	-	-	-	38,330.000	2	76.660

Remarks:
FY2022 PDI procurement dollars in the amount of $76.660 million supports the LRIP Vessels 3 and 4. These two vessels are needed to support Production Verification Testing (PVT), Reliability, Availability and Maintainability (RAM) testing, and Operational Testing.

In FY20, two GFE changes occurred that impacted the FY21 and FY22 LRIP vessels. (1) The existing supply of available Common Remotely Operated Weapon Station (CROWS) has been allocated to other programs and therefore the MSV(L) will be required to procure and integrate the next generation CROWS onto the vessel (program funded). (2) The C5ISR suite design was finalized and in order to meet the emerging joint interoperability requirements, additional tactical communications GFE is now required. Both of these changes require additional funding for GFE and engineering changes to the vessel.

Resourcing for the FY21 GFE (LRIP vessels 1 and 2) was resolved through reallocation of requirements in prior years funding (FY20 and FY21) to free up FY21 funding for the FY21 GFE. FY22 GFE (LRIP vessels 3 and 4) and associated engineering changes are included in this PB22 request as a separate cost element.

Secondary Distribution		FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Army	Quantity	-	2	2	-	2
	Total Obligation Authority	14.185	76.576	76.660	-	76.660
Total: Secondary Distribution	**Quantity**	**-**	**2**	**2**	**-**	**2**
	Total Obligation Authority	**14.185**	**76.576**	**76.660**	**-**	**76.660**

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2022 Army		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 55	**P-1 Line Item Number / Title:** 8211R01001 / Maneuver Support Vessel (MSV)	**Item Number / Title [DODIC]:** R03050 / Maneuver Support Vessel (Light) (MSV-L)

Cost Elements	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
Recurring Production - Vessels(†)		2021	Vigor Works LLC / Vancouver, WA	C / FFP	Warren, MI	Apr 2021	Aug 2023	2	21,020.000	N		
Recurring Production - Vessels(†)		2022	Vigor Works LLC / Vancouver, WA	C / FFP	Warren, MI	Jan 2022	Oct 2023	2	21,055.000	N		

(†) indicates the presence of a P-21

Remarks:
It is anticipated that the production lead time for an MSV(L) vessel is ~18-24 months from contract award to vessel delivery, which includes the lead time for ordering materials (aluminum and major sub-system components), fabrication, Contractor sea trials, and Government acceptance trials.

Assuming on time production contract awards, FY21 LRIP Vessels (2) will be delivered in 1QFY23 and 3QFY23, respectively. FY22 LRIP vessels (2) will delivered in 4QFY23 and 2QFY24, respectively.

Exhibit P-21, Production Schedule: PB 2022 Army		**Date:** May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 55	**P-1 Line Item Number / Title:** 8211R01001 / Maneuver Support Vessel (MSV)	**Item Number / Title [DODIC]:** R03050 / Maneuver Support Vessel (Light) (MSV-L)

Cost Elements (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	
Recurring Production - Vessels																															
	1	2021	ARMY	2	0	2							A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
	1	2022	ARMY	2	0	2																A -	-	-	-	-	-	-	-	-	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 2022 Army		**Date:** May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 55	**P-1 Line Item Number / Title:** 8211R01001 / Maneuver Support Vessel (MSV)	**Item Number / Title [DODIC]:** R03050 / Maneuver Support Vessel (Light) (MSV-L)

Cost Elements (Units in Each)							Fiscal Year 2023												Fiscal Year 2024												BALANCE
							Calendar Year 2023												Calendar Year 2024												
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2022	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	
Recurring Production - Vessels																															
	1	2021	ARMY	2	0	2	-	-	-	-	-	-	-	-	-	-	1	1													0
	1	2022	ARMY	2	0	2	-	-	-	-	-	-	-	-	-	-	-	-	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 2022 Army		**Date:** May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 55	**P-1 Line Item Number / Title:** 8211R01001 / Maneuver Support Vessel (MSV)	**Item Number / Title [DODIC]:** R03050 / Maneuver Support Vessel (Light) (MSV-L)

MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Year)			Procurement Leadtime (Months)							
					Initial				Reorder			
		MSR For 2022	1-8-5 For 2022	MAX For 2022	ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1	ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1
1	Vigor Works LLC - Vancouver, WA	2	2	10	0	7	28	35	0	7	21	28

Remarks:
Build time of vessel is 18-24 months.

COVID19: The COVID19 pandemic is driving significant production risk across the shipbuilding industry (absenteeism, demand for skilled trades, safety protocols, and reliance on sub-contractor TDY). To date, the Army has seen minimal impact on the MSV(L) program, which remains on schedule in accordance with Acquisition Program Baseline thresholds. Although vaccinations could potentially mitigate some risks, the Army will continue to monitor the situation closely during the MSV(L) prototype and LRIP production builds.

"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 2022 Army	Date: May 2021
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 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	185.781	6.920	1.844	-	-	-	-	-	-	-	-	-
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	185.781	6.920	1.844	-	-	-	-	-	-	-	-	-
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**185.781**	**6.920**	**1.844**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
(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.

There is no FY22 funding for this line item and Float (Army Watercraft Systems) will no longer utilize this line beyond FY21.

For the Rail program, railroad equipment consists of locomotives, rolling stock, railway passenger cars, track maintenance equipment, etc., used to support Army ammunition plants, Army Materiel Command (AMC) depots, Installation Management Command (IMCOM), Forces Command (FORSCOM) and Training and Doctrine Command (TRADOC) installations in peacetime, training and mobilization missions. This Railway Equipment is procured for the replacement of locomotives and railway cars that have exceeded their economic useful life (65 years) and have become logistically unsupportable and costly to maintain. This equipment is in some cases already unserviceable and in other cases, either unsafe or not cleared for use under the Federal Railroad Administration (FRA). Funding was provided in FY19 to procure shop equipment and tools to assist in the Army's move of its railroad locomotive overhaul facility, the Defense Generator & Rail Center from Hill, AFB, UT to Anniston Army Depot, AL.

Locomotive procurement consists of commercial off-the-shelf GENSET switcher locomotives in direct support of the Army Rail Modernization Program. The program mandates systematic replacement of an aging fleet, that for the respective installations are becoming increasingly more costly to maintain. The GENSET Locomotives are industry proven, state of the art technology that will position the Army to meet current EPA air quality restrictions, and future fuel economy mandates. The procurement of railway cars is to meet TDA shortages at various Army installations as well as to replace aging assets that have exceeded their economic useful life.

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

Secondary Distribution		FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026
Army	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	6.920	1.844	-	-	-	-	-	-	-
Total:	**Quantity**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**

Exhibit P-40, Budget Line Item Justification: PB 2022 Army			Date: May 2021
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			

Secondary Distribution		FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026
Secondary Distribution	Total Obligation Authority	6.920	1.844	-	-	-	-	-	-	-

Justification:
ML5355 has no FY2022 funding request.

Exhibit P-40, Budget Line Item Justification: PB 2022 Army	Date: May 2021
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 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026	To Complete	Total
Procurement Quantity *(Units in Each)*	7,152	2,533	2,877	1,841	-	1,841	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	430.949	115.912	101.239	47.606	-	47.606	-	-	-	-	-	-
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	430.949	115.912	101.239	47.606	-	47.606	-	-	-	-	-	-
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**430.949**	**115.912**	**101.239**	**47.606**	**-**	**47.606**	**-**	**-**	**-**	**-**	**-**	**-**
(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)*	60.256	45.761	35.189	25.859	-	25.859	-	-	-	-	-	-

Description:

This line supports the Army Network Modernization Strategy Line of Effort #4, Command Post. This line provides the power generation and distribution that enables the Army to employ Command Posts across the operational spectrum, from early entry to major combat operations. Command Posts will use the microgrid to provide safe, reliable, and efficient power.

The MA9800 / Generators and Associated Equipment funding line supports the Mobile Electric Power Generating Sources (MEPGS) systems. The MEPGS systems consist of three generations: first generation is the Military Standard (MIL-STD) generators (to include the 2kW Military Tactical Generator (MTG)); the second generation is the Tactical Quiet Generator (TQG); the third generation is the Tactical Electric Power (TEP). The TEP program is to replace and modernize the first and second generation of DoD generator inventory (MIL STD, MTG and TQG, respectively) to meet the Army's requirements and establish the DoD standard for MEPGS. The TEP program is structured around the Small Tactical Electric Power (STEP) that covers 2-3kW stand-alone generator variants, Advanced Medium Mobile Power Sources (AMMPS) that covers 5-60kW stand-alone generator variants, Large Advanced Mobile Power Sources (LAMPS) that covers 100kW and 200kW stand-alone generator variants, multiple Power Units/Power Plants (PU/PPs) and Microgrid configurations. Large Tactical Power (LTP) will support the initial development of a large tactical power solution (up to 500kW).

The MA9800 / Generators and Associated Equipment funding line also supports Mobile Electric Power Distribution Systems (MEPDS), Mobile Electric Power Management Systems (MEPMS) and Mobile Electric Power Storage Systems (MEPSS) IAW DODI 4120.11. The MEPDS includes current associated power distribution equipment (Power Distribution Illumination Systems Electrical (PDISE)).

These programs collectively provide a new, modern family of generators and distribution systems satisfying critical user requirements. The TEP CPD (rev 2, July 2014) will:
1. Reduce Acquisition Costs and Operations and Sustainment (O&S) costs by 15-20%.
2. Reduce weight by 25% across generator population, thereby reducing the Logistics footprint and improving deployability.
3. Significantly improve Reliability, Availability and Maintainability, to include mean time between failure improvements of 100-300%.
4. Eliminate gasoline from the generator inventory, thus complying with DoD guidance regarding single fuel on the battlefield (diesel/JP-8).
5. Reduce battlefield detectability by lowering noise levels by 50-75% across generator population.
6. Improve battlefield survivability by providing mission critical electric power to the digitized warfighting forces.
?
MEPDS, MEPMS and MEPSS will develop and field joint solutions, the equipment developed will provide an interface for future On-board Vehicle Power System, Hybrid Power systems and alternative/renewable energy power systems.

Exhibit P-40, Budget Line Item Justification: PB 2022 Army		Date: May 2021
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		

Power Distribution Illumination Systems Electrical (PDISE) provides the linkage between the generators and the Network/C3I, Air & Missile Defense, Long Range Precision Fires, Command Post and Combat Support/Combat Service Support systems. Power distribution systems are the circuit breaker panel for communication and electronic systems. This program transmits electrical power efficiently from the point of generation to the point of need. PDISE components are man-portable and safe for all-weather operations to protect Soldiers from electric shock. PDISE is a reliable, quick to assemble, modular designed power distribution equipment that is critical to deploying power networks. PDISE is compatible with DoD generator sets from 5kW to 60kW. PDISE as a program is committed solely to the warfighter. Medium Power Distribution Systems (MPDS) provides the linkage between the 5-60kW generators and includes the current PDISE family, M200, M100, M40, M60, M46 and the multiple input microgrid feeder box.
M200 Army Acquisition Objective (AAO) = 324; M100 AAO = 2,314; M60 AAO = 6,231; M40 AAO = 4,748; M46 AAO = 12,020; Microgrid Feeder box AAO= TBD

Advanced Medium Mobile Power Sources (AMMPS) units power or are incorporated into digital systems across the Army Portfolio to include Network/C3I, Air & Missile Defense, Long Range Precision Fires, Command Post and Combat Support/Combat Service Support Systems. AMMPS is a modernization program to provide 5kW, 10kW, 15kW, 30kW, or 60kW generators in either a skid, trailer mounted, or microgrid configuration to replace legacy generators and an ability to interface with newer technologies. AMMPS enhances operational effectiveness by increasing availability of power, while reducing noise, weight, and sustainment burdens for units. AMMPS Microgrid Configurations meet power needs while reducing the fuel consumption on the battlefield. The reduced logistics footprint significantly reduces the cost of operation.
Army Acquisition Objective (AAO) = 17,192.

Power Units/Mounted (AMMPS): Power Units (PUs) consist of one generator set mounted on a trailer. Power Plants (PPs) consist of two generator sets mounted on either one or two trailers (depending on size) with a switchbox installed and paralleling cables between sets. The Microgrid capability allows up to six (6) 30kW or 60kW sized AMMPS generators to automatically start and stop to match load demand and supply power to a common distribution hub.
Power Units/Power Plants Army Acquisition Objective (AAO) = 14,481; Microgrid AAO = TBD.

The generator sets are procured by competitive contracts through the Army Contracting Command - Aberdeen Proving Ground, Belvoir (ACC-APG, B). The trailers are procured by competitive contracts through the Army Contracting Command - Detroit Arsenal (ACC-DTA).

Large Advanced Mobile Power Sources (LAMPS) units power or are incorporated into digital systems across the Army Portfolio to include Air & Missile Defense, Long Range Precision Fires and Combat Support/ Combat Service Support Systems. 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. LAMPS system is based on technology currently available from industry and being used in various industrial applications. They are used to provide power to Radars, Field Hospitals, Corps Support Commands, Homeland Defense, Military Intelligence, Special Operations Command and Forward Operating Bases. LAMPS program will provide significant improvements over currently fielded systems in size, mobility, transportability, diagnostics/prognostics, enhanced survivability and supportability.
Army Acquisition Objective (AAO): LAMPS 100-200kW = 822

Large Tactical Power (LTP) is a modernization program for existing legacy large power generation systems that will provide mobile, durable and reliable tactical electric power capabilities above 60kW, to support Multi Domain Operations in the austere environments of today's battlefield. The first procurement effort will be to produce and field Army standardized 500kW mobile electric power generating sources to support emerging Army modernization effort for Air and Missile Defense Cross Functional Team, Lower Tier Air and Missile Defense Sensor requirements.
Army Acquisition Objective (AAO): LTP 500 kW = 87.

The generators and associated equipment line also funds small power generators such as Small Tactical Electric Power (STEP) Lightweight (STEP-LW) systems, STEP Hybrid Augmentation Systems (STEP HAS) and STEP 3kW systems. The STEP program is a critical enabler to the Army modernization priorities under Army Futures Command Soldier Lethality Cross Function Team (CFT) and Network CFT. It will be power sources for Solider borne sensors, lasers and optics and will provide the Warfighter with expeditionary power solutions designed for combat operations in the most austere environments. STEP will replace existing systems and is a modernization program that will provide improved tactical electric mobile power sources for replacement of the currently fielded 2kW (MTG) sets and 3kW (TQG) sets, initially procured in the 1990s. STEP models will be lightweight, modular, reliable and more logistically supportable power sources than their predecessors for the Department of Defense's (DoD) 21st century digitized forces. AAO: STEP Lightweight = 6,913, STEP Hybrid - 1,026, STEP 3kW = 20,601.

Exhibit P-40, Budget Line Item Justification: PB 2022 Army	Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 60: Generators	**P-1 Line Item Number / Title:** 0426MA9800 / Generators And Associated Equip

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

Line Item MDAP/MAIS Code: N/A

Secondary Distribution		FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026
Army	Quantity	1,559	1,889	952	-	952	-	-	-	-
	Total Obligation Authority	88.236	71.249	35.799	-	35.799	-	-	-	-
ANG	Quantity	731	742	734	-	734	-	-	-	-
	Total Obligation Authority	20.594	22.493	8.430	-	8.430	-	-	-	-
AR	Quantity	243	246	155	-	155	-	-	-	-
	Total Obligation Authority	7.082	7.497	3.377	-	3.377	-	-	-	-
Total: Secondary Distribution	**Quantity**	**2,533**	**2,877**	**1,841**	**-**	**1,841**	**-**	**-**	**-**	**-**
	Total Obligation Authority	**115.912**	**101.239**	**47.606**	**-**	**47.606**	**-**	**-**	**-**	**-**

Exhibit P-40, Budget Line Item Justification: PB 2022 Army	Date: May 2021
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 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/ MAIS Code	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)
P-5	M50202 / Improved Power Distribution Illumination Systems E	P-5a			1,719 / 13.885	- / 3.902	- / 7.747	25 / 4.338	- / -	25 / 4.338
P-5	R51050 / Advanced Medium Mobile Power Systems (AMMPS)	P-5a, P-21			3,228 / 194.131	2,195 / 77.458	1,219 / 41.132	401 / 29.142	- / -	401 / 29.142
P-5	R59210 / Power Units/Mounted (AMMPS)	P-5a			2,205 / 178.382	338 / 26.936	1,250 / 42.971	1,415 / 12.572	- / -	1,415 / 12.572
P-5	R61510 / Large Advanced Mobile Power				- / 16.102	- / 0.230	- / -	- / -	- / -	- / -
P-5	R63510 / Small Tactical Electric Power	P-5a	A		- / 28.449	- / 7.386	408 / 9.389	- / 1.554	- / -	- / 1.554
P-40	**Total Gross/Weapon System Cost**				**7,152 / 430.949**	**2,533 / 115.912**	**2,877 / 101.239**	**1,841 / 47.606**	**- / -**	**1,841 / 47.606**

*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 2022 Base procurement dollars of $47.606 million will procure tactical electric power to support base requirements for small, medium and large generator sets, assembly of power units and power plants, microgrids, and power feeder, distribution, storage and management systems. The program provides for the partial replacement of the current inventory of over aged, gasoline-fueled generators with modernized single fuel (diesel/JP-8) assets that will enhance the user's safety, survivability, reduce the logistics footprint and enhance reliability, availability and maintainability. These mobile generators provide tactical electric power to virtually every weapon, communication, medical and combat support system in the inventory including Network / Command, Control, Communications & Intelligence (C3I) systems; Air & Missile Defense systems; Long Range Precision Fires systems; Soldier Lethality systems, Command Posts / Tactical Operations Centers; and Brigade Combat Teams (BCTs).

IPDISE (M50202): FY 2022 Base procurement dollars of $4.338 million will procure mobile electric power distribution systems to support base requirements for Medium Power Distribution Systems (MPDS). The program continues fielding to Corps/Division headquarters, Brigade Combat Teams (BCTs), and Support Brigades in support of their combat support systems.
MPDS will be conducting production in FY 2022, Large and Prime Power Distribution Systems (LPDS & PPDS) will start production in FY 2024. Provides safe power distribution from the point of generation to the point of need - Network/C3I, Air & Missile Defense, Long Range Precision Fires, Command Post and Combat Support/Combat Service Support systems.
MPDS interfaces with 5-60kW generators (AMMPS), LPDS interfaces with 100-200kW generators sets and PPDS interfaces with the MEP-PU-810.

AMMPS (R51050): FY 2022 Base procurement dollars of $29.142 million will procure mobile electric power generating sources to support base requirements for the Advanced Medium Mobile Power Sources (AMMPS) 5kW-60kW skid mounted sets., AMMPS replace aging legacy systems, reduce total ownership costs and support modernization. This program continues fielding to Corps/Division headquarters, Brigade Combat Teams (BCTs), and Support Brigades in support of their Network / Command, Control, Communications & Intelligence (C3I), Air & Missile Defense, and combat support / combat service support missions. All funding for this line has been moved from Medium Sets, SSN M53500, as of FY 2017. AMMPS generators increase readiness and operational reach while reducing noise, weight, and sustainment burdens (e.g. 60% parts commonality and 20% reduced fuel consumption across the fleet). AMMPS replaces 5-60kW legacy generators in a skid configuration, while adding a Microgrid capability with Advanced Digital Control System (ADCS) and an ability to interface with newer technologies. FY22 base procurement dollars of $0.631 million will support the Enduring Requirement for Operation European Deterrence Initiative.

Power Units/Mounted (AMMPS) (R59210): FY 2022 Base procurement dollars of $12.572 million will procure mobile electric power generating sources to support base requirements for AMMPS power units, power plants, and Microgrid; which replace aging legacy systems, reduce total ownership costs and support modernization. The program continues fielding to Corps/Division headquarters, Brigade Combat Teams (BCT), and Support Brigades in support of their Network / Command, Control, Communications & Intelligence (C3I), Air & Missile Defense, and combat support /combat service support missions. All funding for this line has been moved from POWER UNITS/POWER PLANTS, SSN R62700, as of FY 2017. AMMPS generators increase readiness and operational reach while reducing noise, weight, and sustainment burdens (e.g. 60% parts commonality and 20% reduced fuel consumption across the fleet). AMMPS replaces 5-60kW legacy generators in a trailer mounted configuration, while adding a Microgrid capability and an ability to interface with newer technologies. FY22 base procurement dollars of $0.136 million will support the Enduring Requirement for Operation European Deterrence Initiative.

Exhibit P-40, Budget Line Item Justification: PB 2022 Army		Date: May 2021
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 2022 base procurement dollars of $1.554 million will fund efforts on transition legacy 3kW TQG to sustainment planned for FY23 and procure mobile electric power generating sources to support base requirements for legacy 3kW TQG.
. 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 2022 Army		Date: May 2021
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 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Procurement Quantity *(Units in Each)*	1,719	-	-	25	-	25
Gross/Weapon System Cost *($ in Millions)*	13.885	3.902	7.747	4.338	-	4.338
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	13.885	3.902	7.747	4.338	-	4.338
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**13.885**	**3.902**	**7.747**	**4.338**	**-**	**4.338**
(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)*	8.077	-	-	173.520	-	173.520

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

Cost Elements	Prior Years			FY 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 Total		
	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	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	-	-	1.368	-	-	0.325	-	-	0.989	-	-	0.510	-	-	-	-	-	0.510
2. Engineering Change Orders	-	-	0.131	-	-	-	-	-	0.100	-	-	0.030	-	-	-	-	-	0.030
3. Testing	-	-	0.236	-	-	0.427	-	-	0.960	-	-	0.500	-	-	-	-	-	0.500
4. System Fielding Support	-	-	0.375	-	-	0.050	-	-	0.320	-	-	0.100	-	-	-	-	-	0.100
5. Systems Assessment	-	-	0.162	-	-	-	-	-	0.890	-	-	0.300	-	-	-	-	-	0.300
6. Logistics Support	-	-	0.993	-	-	0.924	-	-	1.200	-	-	0.876	-	-	-	-	-	0.876
7. Data	-	-	0.300	-	-	-	-	-	0.860	-	-	0.300	-	-	-	-	-	0.300
8. PM Management Support	-	-	3.749	-	-	2.176	-	-	2.428	-	-	1.100	-	-	-	-	-	1.100
Subtotal: Recurring Cost	*-*	*-*	*7.314*	*-*	*-*	*3.902*	*-*	*-*	*7.747*	*-*	*-*	*3.716*	*-*	*-*	*-*	*-*	*-*	*3.716*
Subtotal: Flyaway Cost	***-***	***-***	***7.314***	***-***	***-***	***3.902***	***-***	***-***	***7.747***	***-***	***-***	***3.716***	***-***	***-***	***-***	***-***	***-***	***3.716***
Hardware Cost																		
Recurring Cost																		
M100 (Feeder System)(†)	6.000	20	0.120	-	-	-	-	-	-	44.000	1	0.044	-	-	-	44.000	1	0.044
M 40 (Distribution System)(†)	4.236	556	2.355	-	-	-	-	-	-	54.000	1	0.054	-	-	-	54.000	1	0.054

Exhibit P-5, Cost Analysis: PB 2022 Army		Date: May 2021
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 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 Total		
	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)
M60 (Distribution System)	-	-	-	-	-	-	-	-	-	53.000	1	0.053	-	-	-	53.000	1	0.053
M200 (Feeder System)(†)	6.135	335	2.055	-	-	-	-	-	-	38.000	8	0.304	-	-	-	38.000	8	0.304
M46 U89185- UTILITY RECEPTACLE(†)	3.793	538	2.041	-	-	-	-	-	-	19.000	1	0.019	-	-	-	19.000	1	0.019
Microgrid(†)	-	-	-	-	-	-	-	-	-	148.000	1	0.148	-	-	-	148.000	1	0.148
Subtotal: Recurring Cost	-	-	*6.571*	-	-	-	-	-	-	-	-	*0.622*	-	-	-	-	-	*0.622*
Subtotal: Hardware Cost	**-**	**-**	***6.571***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***0.622***	**-**	**-**	**-**	**-**	**-**	***0.622***
Gross/Weapon System Cost	**8.077**	**1,719**	**13.885**	**-**	**-**	**3.902**	**-**	**-**	**7.747**	**173.520**	**25**	**4.338**	**-**	**-**	**-**	**173.520**	**25**	**4.338**

Remarks:
Medium Power Distribution Systems (MPDS) will continue production in FY22, LPDS and PPDS will begin production in FY24.

FY22 unit costs will be finalized when contract is awarded.

FY22 qty incorrectly reflected on P40; qty should reflect 13.

PDISE Expansion Large Power Distribution Systems (LPDS) MEPDS-800 prototype development testing on going, the program is actively pursuing technology insertion (Microgrid capabilities). Prime Power Distribution Systems (PPDS) development and fielding of Prime Power Connection Kit planned (FY22- FY26).

Secondary Distribution		FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Army	Quantity	-	-	17	-	17
	Total Obligation Authority	3.902	7.747	2.739	-	2.739
ANG	Quantity	-	-	7	-	7
	Total Obligation Authority	-	-	1.195	-	1.195
AR	Quantity	-	-	1	-	1
	Total Obligation Authority	-	-	0.404	-	0.404
Total: Secondary Distribution	**Quantity**	**-**	**-**	**25**	**-**	**25**
	Total Obligation Authority	**3.902**	**7.747**	**4.338**	**-**	**4.338**

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2022 Army		Date: May 2021
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
M100 (Feeder System)		2022	TBD / TBD	Option / TBD	TBD	Feb 2022	Jul 2022	1	44.000	Y		
M 40 (Distribution System)		2022	TBD / TBD	Option / TBD	TBD	Feb 2022	Jul 2022	1	54.000	Y		
M200 (Feeder System)		2019	Fidelity Technologies Corp / Reading, PA	C / FFP	ACC-APG, Belvoir	Jan 2019	Jul 2019	9	11.000	Y		
M200 (Feeder System)		2022	TBD / TBD	Option / TBD	TBD	Feb 2022	Jul 2022	8	38.000	Y		
M46 U89185- UTILITY RECEPTACLE		2022	TBD / TBD	Option / TBD	TBD	Feb 2022	Jul 2022	1	19.000	Y		
Microgrid		2022	TBD / TBD	Option / TBD	TBD	Feb 2022	Jul 2022	1	148.000	N		

Remarks:
The program is analyzing a "Make" or "Buy" approach to build to print the PDISE/MFB systems in accordance with the Government Technical Data Package (TDP). Subsequently, there are '0' quantities in FY21.

The PDISE program will request a modification of production quantities at Tobyhanna Army Depot (TYAD) to reflect any change greater/lesser than 10% of the prescribed COMPO 2/3 requirements. TYAD is organic to the government, the execution of the request for deviation will transition faster IOT optimize manpower and resources. TYAD will also possess above the line stock levels to meet any future surge capabilities. The contract for PDISE production at TYAD is estimated to be in place by 2QFY21. Contract pricing still to be determined.

Exhibit P-5, Cost Analysis: PB 2022 Army		Date: May 2021
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 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Procurement Quantity *(Units in Each)*	3,228	2,195	1,219	401	-	401
Gross/Weapon System Cost *($ in Millions)*	194.131	77.458	41.132	29.142	-	29.142
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	194.131	77.458	41.132	29.142	-	29.142
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**194.131**	**77.458**	**41.132**	**29.142**	**-**	**29.142**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)						
Initial Spares *($ in Millions)*	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Thousands)*	60.140	35.288	33.742	72.673	-	72.673

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

Cost Elements	Prior Years			FY 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 Total		
	Unit Cost *($ K)*	Qty *(Each)*	Total Cost *($ M)*	Unit Cost *($ K)*	Qty *(Each)*	Total Cost *($ M)*	Unit Cost *($ K)*	Qty *(Each)*	Total Cost *($ M)*	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	-	-	4.504	-	-	2.364	-	-	0.802	-	-	1.990	-	-	-	-	-	1.990
2. Engineering Change Orders	-	-	0.309	-	-	0.350	-	-	0.275	-	-	0.400	-	-	-	-	-	0.400
3. Testing	-	-	0.464	-	-	0.030	-	-	0.100	-	-	0.280	-	-	-	-	-	0.280
4. System Fielding Support	-	-	7.788	-	-	3.858	-	-	2.100	-	-	2.800	-	-	-	-	-	2.800
5. System Assessment	-	-	1.940	-	-	0.130	-	-	0.140	-	-	0.337	-	-	-	-	-	0.337
6. Logistics Support	-	-	5.631	-	-	0.900	-	-	0.870	-	-	1.315	-	-	-	-	-	1.315
7. Data	-	-	0.732	-	-	0.498	-	-	0.200	-	-	0.650	-	-	-	-	-	0.650
8. PM Management Support	-	-	8.027	-	-	7.889	-	-	1.967	-	-	2.702	-	-	-	-	-	2.702
Subtotal: Recurring Cost	-	-	*29.395*	-	-	*16.019*	-	-	*6.454*	-	-	*10.474*	-	-	-	-	-	*10.474*
Subtotal: Flyaway Cost	**-**	**-**	***29.395***	**-**	**-**	***16.019***	**-**	**-**	***6.454***	**-**	**-**	***10.474***	**-**	**-**	**-**	**-**	**-**	***10.474***
Hardware Cost																		
Recurring Cost																		
5kW/60Hz (MEP1030)(†)	23.000	2,461	56.603	24.000	830	19.920	22.700	460	10.442	24.000	235	5.640	-	-	-	24.000	235	5.640
10kW/60Hz (MEP1040)(†)	23.000	3,200	73.600	27.500	392	10.780	25.800	360	9.288	27.000	88	2.376	-	-	-	27.000	88	2.376

Exhibit P-5, Cost Analysis: PB 2022 Army		Date: May 2021
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 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 Total		
	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)
10kW, 400Hz (MEP 1041)	-	-	-	31.000	5	0.155	-	-	-	-	-	-	-	-	-	-	-	-
15kW/60Hz (MEP1050)(†)	28.000	767	21.476	30.000	634	19.020	-	-	-	-	-	-	-	-	-	-	-	-
15kW/400Hz (MEP1051)(†)	32.000	192	6.144	33.000	110	3.630	-	-	-	-	-	-	-	-	-	-	-	-
30kW/60Hz (MEP1060)(†)	31.500	175	5.513	32.500	98	3.185	31.500	250	7.875	33.000	89	2.937	-	-	-	33.000	89	2.937
30kW/400Hz (MEP1061)(†)	40.000	8	0.320	41.500	6	0.249	-	-	-	-	-	-	-	-	-	-	-	-
60kW/60Hz (MEP1070)(†)	36.000	30	1.080	37.500	120	4.500	36.700	149	5.468	38.000	106	4.028	-	-	-	38.000	106	4.028
60kW/400z(MEP1071)(†)	-	-	-	-	-	-	-	-	0.051	53.000	12	0.636	-	-	-	53.000	12	0.636
Spare parts - Accessories	-	-	-	-	-	-	-	-	1.554	-	-	3.051	-	-	-	-	-	3.051
Subtotal: Recurring Cost	-	-	*164.736*	-	-	*61.439*	-	-	*34.678*	-	-	*18.668*	-	-	-	-	-	*18.668*
Subtotal: Hardware Cost	**-**	**-**	***164.736***	**-**	**-**	***61.439***	**-**	**-**	***34.678***	**-**	**-**	***18.668***	**-**	**-**	**-**	**-**	**-**	***18.668***
Gross/Weapon System Cost	**60.140**	**3,228**	**194.131**	**35.288**	**2,195**	**77.458**	**33.742**	**1,219**	**41.132**	**72.673**	**401**	**29.142**	**-**	**-**	**-**	**72.673**	**401**	**29.142**

Remarks:
Production and Deployment Phase FY11-26
AMMPS IDIQ contract FY18-22
AMMPS Follow on contract FY23-27
Support FY24-27 CPI2 Microgrid Fielding

P40 incorrectly showing qty of 401 in FY22; qty should reflect 530.

Secondary Distribution		FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Army	Quantity	1,319	731	243	-	243
	Total Obligation Authority	54.626	28.116	24.847	-	24.847
ANG	Quantity	657	366	119	-	119
	Total Obligation Authority	16.934	9.762	3.221	-	3.221
AR	Quantity	219	122	39	-	39
	Total Obligation Authority	5.898	3.254	1.074	-	1.074

Exhibit P-5, Cost Analysis: PB 2022 Army		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 60	**P-1 Line Item Number / Title:** 0426MA9800 / Generators And Associated Equip	**Item Number / Title [DODIC]:** R51050 / Advanced Medium Mobile Power Systems (AMMPS)
ID Code (A=Service Ready, B=Not Service Ready) :	**MDAP/MAIS Code:**	

Secondary Distribution		FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Total: Secondary Distribution	Quantity	2,195	1,219	401	-	401
	Total Obligation Authority	77.458	41.132	29.142	-	29.142

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2022 Army		Date: May 2021
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)(†)		2018	CUMMINS POWER GENERATION; INC / Minneapolis, MN	SS / FFP	ACC-APG, Belvoir	Sep 2018	Oct 2019	535	35.929	Y		
5kW/60Hz (MEP1030)(†)		2019	CUMMINS POWER GENERATION; INC / Minneapolis, MN	SS / FFP	ACC-APG, Belvoir	Feb 2019	Feb 2020	476	19.000	Y		
5kW/60Hz (MEP1030)(†)		2020	CUMMINS POWER GENERATION; INC / Minneapolis, MN	SS / FFP	ACC-APG, Belvoir	Feb 2020	Feb 2021	830	24.000	Y		
5kW/60Hz (MEP1030)(†)		2021	CUMMINS POWER GENERATION; INC / Minneapolis, MN	SS / FFP	ACC-APG, Belvoir	Apr 2021	Feb 2022	460	22.700	Y		
5kW/60Hz (MEP1030)(†)		2022	CUMMINS POWER GENERATION; INC / Minneapolis, MN	SS / FFP	ACC-APG, Belvoir	Feb 2022	Feb 2023	235	24.000	Y		
10kW/60Hz (MEP1040)		2018	CUMMINS POWER GENERATION; INC / Minneapolis, MN	SS / FFP	ACC-APG, Belvoir	Sep 2018	Oct 2019	800	22.695	Y		
10kW/60Hz (MEP1040)		2019	CUMMINS POWER GENERATION; INC / Minneapolis, MN	SS / FFP	ACC-APG, Belvoir	Feb 2019	Feb 2020	1,250	24.000	Y		
10kW/60Hz (MEP1040)		2020	CUMMINS POWER GENERATION; INC / Minneapolis, MN	SS / FFP	ACC-APG, Belvoir	Feb 2020	Feb 2021	392	27.500	Y		
10kW/60Hz (MEP1040)		2021	CUMMINS POWER GENERATION; INC / Minneapolis, MN	SS / FFP	ACC-APG, Belvoir	Feb 2021	Feb 2022	360	25.800	Y		
10kW/60Hz (MEP1040)		2022	CUMMINS POWER GENERATION; INC / Minneapolis, MN	SS / FFP	ACC-APG, Belvoir	Mar 2022	Mar 2023	88	27.000	Y		
15kW/60Hz (MEP1050)		2018	CUMMINS POWER GENERATION; INC / Minneapolis, MN	SS / FFP	ACC-APG, Belvoir	Sep 2018	Oct 2019	190	3.200	Y		
15kW/60Hz (MEP1050)		2019	CUMMINS POWER GENERATION; INC / Minneapolis, MN	SS / FFP	ACC-APG, Belvoir	Feb 2019	Feb 2020	507	24.000	Y		
15kW/60Hz (MEP1050)		2020	CUMMINS POWER GENERATION; INC / Minneapolis, MN	SS / FFP	ACC-APG, Belvoir	Feb 2020	Feb 2021	634	30.000	Y		
15kW/400Hz (MEP1051)		2018	CUMMINS POWER GENERATION; INC / Minneapolis, MN	SS / FFP	ACC-APG, Belvoir	Sep 2018	Oct 2019	192	23.318	Y		
15kW/400Hz (MEP1051)		2020	CUMMINS POWER GENERATION; INC / Minneapolis, MN	SS / FFP	ACC-APG, Belvoir	Feb 2020	Feb 2021	110	33.000	Y		
30kW/60Hz (MEP1060)		2018	CUMMINS POWER GENERATION; INC / Minneapolis, MN	SS / FFP	ACC-APG, Belvoir	Sep 2018	Oct 2019	25	84.240	Y		
30kW/60Hz (MEP1060)		2021	CUMMINS POWER GENERATION; INC / Minneapolis, MN	SS / FFP	ACC-APG,Belvoir	Feb 2021	Feb 2022	250	31.500	Y		
30kW/60Hz (MEP1060)		2022	CUMMINS POWER GENERATION; INC / Minneapolis, MN	SS / FFP	ACC-APG, Belvoir	Feb 2022	Feb 2023	89	33.000	Y		
30kW/400Hz (MEP1061)		2020	CUMMINS POWER GENERATION; INC / Minneapolis, MN	SS / FFP	ACC-APG, Belvoir	Feb 2020	Feb 2021	6	41.500	Y		

Exhibit P-5a, Procurement History and Planning: PB 2022 Army		Date: May 2021
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
60kW/60Hz (MEP1070)		2021	CUMMINS POWER GENERATION; INC / Minneapolis, MN	SS / FFP	ACC-APG,Belvoir	Feb 2021	Feb 2022	149	36.700	Y		
60kW/60Hz (MEP1070)		2022	CUMMINS POWER GENERATION; INC / Minneapolis, MN	SS / FFP	ACC-APG, Belvoir	Feb 2022	Feb 2022	106	38.000	Y		
60kW/400z(MEP1071)		2022	CUMMINS POWER GENERATION; INC / Minneapolis, MN	SS / FFP	ACC-APG, Belvoir	Feb 2022	Feb 2023	12	53.000	Y		

(†) indicates the presence of a P-21

Exhibit P-21, Production Schedule: PB 2022 Army		**Date:** May 2021
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 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	
5kW/60Hz (MEP1030)																															
Prior Years Deliveries: 1450																															
	1	2018	ARMY	535	0	535												A -	-	-	-	-	-	-	-	-	-	-	-	-	535
	1	2019	ARMY	476	0	476																	A -	-	-	-	-	-	-	-	476
	1	2020	ARMY	830	0	830																									830
	1	2021	ARMY	460	0	460																									460
	1	2022	ARMY	235	0	235																									235
							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 2022 Army		**Date:** May 2021
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 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	
5kW/60Hz (MEP1030)																															
Prior Years Deliveries: 1450																															
	1	2018	ARMY	535	0	535	44	44	44	44	44	45	45	45	45	45	45	45													0
	1	2019	ARMY	476	0	476	-	-	-	-	39	39	39	40	40	40	40	40	40	40	40	39									0
	1	2020	ARMY	830	0	830					A -	-	-	-	-	-	-	-	-	-	-	-	33	33	40	40	40	40	40	40	524
	1	2021	ARMY	460	0	460																			A -	-	-	-	-	-	460
	1	2022	ARMY	235	0	235																									235
							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 2022 Army		Date: May 2021
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 2022												Fiscal Year 2023												BALANCE
										Calendar Year 2022												Calendar Year 2023									
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2021	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: 1450																															
	1	2018	ARMY	535	535	0																									0
	1	2019	ARMY	476	476	0																									0
	1	2020	ARMY	830	306	524	40	40	40	50	50	50	50	50	50	50	50	4													0
	1	2021	ARMY	460	0	460	-	-	-	-	15	25	25	25	25	25	25	25	25	25	25	25	25	25	20	20	20	20	20	20	0
	1	2022	ARMY	235	0	235					A -	-	-	-	-	-	-	-	-	-	-	-	20	20	20	20	20	20	20	20	75
							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 2022 Army		**Date:** May 2021
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 2024												Fiscal Year 2025												BALANCE
							Calendar Year 2024												Calendar Year 2025												
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2023	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: 1450																															
	1	2018	ARMY	535	535	0																									0
	1	2019	ARMY	476	476	0																									0
	1	2020	ARMY	830	830	0																									0
	1	2021	ARMY	460	460	0																									0
	1	2022	ARMY	235	160	75	20	20	20	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 2022 Army		**Date:** May 2021
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 / Year)			Procurement Leadtime (Months)							
					Initial				Reorder			
		MSR For 2022	1-8-5 For 2022	MAX For 2022	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	1,000	3,000	5,000	6	2	17	19	6	2	17	19

Remarks:
All production rates shown on a yearly basis.

Manufacturer has multiple products (AMMPS and PUPPS) that contribute to the minimum production rate of 1,200.
Customer funding across the POM increases funding above MSR

"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 2022 Army		Date: May 2021
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 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Procurement Quantity *(Units in Each)*	2,205	338	1,250	1,415	-	1,415
Gross/Weapon System Cost *($ in Millions)*	178.382	26.936	42.971	12.572	-	12.572
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	178.382	26.936	42.971	12.572	-	12.572
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**178.382**	**26.936**	**42.971**	**12.572**	**-**	**12.572**
(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)*	80.899	79.692	34.377	8.885	-	8.885

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

Cost Elements	Prior Years			FY 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 Total		
	Unit Cost *($ K)*	Qty *(Each)*	Total Cost *($ M)*	Unit Cost *($ K)*	Qty *(Each)*	Total Cost *($ M)*	Unit Cost *($ K)*	Qty *(Each)*	Total Cost *($ M)*	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	-	-	4.681	-	-	1.790	-	-	0.559	-	-	0.370	-	-	-	-	-	0.370
2. Engineering Change Orders	-	-	0.090	-	-	0.090	-	-	0.015	-	-	0.010	-	-	-	-	-	0.010
3. Testing	-	-	1.347	-	-	0.030	-	-	0.024	-	-	0.010	-	-	-	-	-	0.010
4.System Fielding Support	-	-	4.887	-	-	2.698	-	-	1.050	-	-	0.700	-	-	-	-	-	0.700
5. System Assessment	-	-	1.859	-	-	0.823	-	-	0.280	-	-	0.100	-	-	-	-	-	0.100
6. Logistics Support	-	-	3.018	-	-	1.590	-	-	0.540	-	-	0.400	-	-	-	-	-	0.400
7. Data	-	-	1.035	-	-	0.500	-	-	0.149	-	-	0.080	-	-	-	-	-	0.080
8. PM Management Support	-	-	10.488	-	-	3.668	-	-	1.948	-	-	1.123	-	-	-	-	-	1.123
Subtotal: Recurring Cost	-	-	*27.405*	-	-	*11.189*	-	-	*4.565*	-	-	*2.793*	-	-	-	-	-	*2.793*
Subtotal: Flyaway Cost	**-**	**-**	***27.405***	**-**	**-**	***11.189***	**-**	**-**	***4.565***	**-**	**-**	***2.793***	**-**	**-**	**-**	**-**	**-**	***2.793***
Hardware Cost																		
Recurring Cost																		
PU2001, 5kW 50/60Hz(†)	27.807	709	19.715	32.000	95	3.040	23.000	360	8.280	24.000	93	2.232	-	-	-	24.000	93	2.232
PU2002, 10kW 50/60Hz(†)	29.955	536	16.056	35.000	85	2.975	26.000	200	5.200	26.299	87	2.288	-	-	-	26.299	87	2.288

Exhibit P-5, Cost Analysis: PB 2022 Army		Date: May 2021
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 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 Total		
	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)
PU2003, 15kW/60Hz, LTT(†)	37.000	101	3.737	38.000	89	3.382	28.000	60	1.680	29.000	15	0.435	-	-	-	29.000	15	0.435
PU2101, 15kW 50/60Hz, M200(†)	35.245	1,060	37.360	-	-	-	28.000	220	6.160	28.304	56	1.585	-	-	-	28.304	56	1.585
PU2102, 30kW 50/60Hz(†)	38.486	535	20.590	-	-	-	31.500	50	1.575	32.200	25	0.805	-	-	-	32.200	25	0.805
PU2103, 60kW/60Hz(†)	39.000	265	10.335	-	-	-	37.000	50	1.850	37.520	25	0.938	-	-	-	37.520	25	0.938
PU 2111, 15Kw/400Hz(†)	36.000	30	1.080	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PU2112, 30kW 400Hz(†)	40.857	56	2.288	-	-	-	-	-	-	41.333	3	0.124	-	-	-	41.333	3	0.124
PP3001, two 5kW 50/60Hz, LTT(†)	54.527	110	5.998	59.000	6	0.354	-	-	-	49.333	6	0.296	-	-	-	49.333	6	0.296
PP3003, two 15kW 50/60Hz(†)	66.412	102	6.774	75.000	3	0.225	62.000	45	2.790	63.000	2	0.126	-	-	-	63.000	2	0.126
PP3102, two 10kW 50/60Hz(†)	82.173	162	13.312	-	-	-	55.500	60	3.330	56.000	7	0.392	-	-	-	56.000	7	0.392
PP3105, two 30kW 50/60Hz(†)	69.843	83	5.797	-	-	-	68.000	43	2.924	69.000	3	0.207	-	-	-	69.000	3	0.207
PP3106, two 60kW 50/60Hz(†)	83.000	84	6.972	84.000	51	4.284	81.000	57	4.617	83.000	3	0.249	-	-	-	83.000	3	0.249
MEP-3101; TWO 5kW 50/60 Hz AMMPS GEN SETS ON M200	-	-	-	-	-	-	-	-	-	51.000	2	0.102	-	-	-	51.000	2	0.102
Spare parts. Assemblies	-	-	0.963	-	-	1.487	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Recurring Cost	-	-	*150.977*	-	-	*15.747*	-	-	*38.406*	-	-	*9.779*	-	-	-	-	-	*9.779*
Subtotal: Hardware Cost	**-**	**-**	***150.977***	**-**	**-**	***15.747***	**-**	**-**	***38.406***	**-**	**-**	***9.779***	**-**	**-**	**-**	**-**	**-**	***9.779***
Gross/Weapon System Cost	**80.899**	**2,205**	**178.382**	**79.692**	**338**	**26.936**	**34.377**	**1,250**	**42.971**	**8.885**	**1,415**	**12.572**	**-**	**-**	**-**	**8.885**	**1,415**	**12.572**

Remarks:
P40 incorrectly reflecting qty of 1,415 in FY22; total should reflect 327.

Exhibit P-5, Cost Analysis: PB 2022 Army		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 60	**P-1 Line Item Number / Title:** 0426MA9800 / Generators And Associated Equip	**Item Number / Title [DODIC]:** R59210 / Power Units/Mounted (AMMPS)
ID Code (A=Service Ready, B=Not Service Ready) :	**MDAP/MAIS Code:**	

Secondary Distribution		FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Army	Quantity	240	750	692	-	692
	Total Obligation Authority	22.092	25.997	6.659	-	6.659
ANG	Quantity	74	376	608	-	608
	Total Obligation Authority	3.660	12.731	4.014	-	4.014
AR	Quantity	24	124	115	-	115
	Total Obligation Authority	1.184	4.243	1.899	-	1.899
Total: Secondary Distribution	**Quantity**	**338**	**1,250**	**1,415**	**-**	**1,415**
	Total Obligation Authority	**26.936**	**42.971**	**12.572**	**-**	**12.572**

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2022 Army		Date: May 2021
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
PU2001, 5kW 50/60Hz		2018	CUMMINS POWER GENERATION; INC / Minneapolis, MN	SS / FFP	ACC-APG, Belvoir	Sep 2018	Oct 2019	186	20.000	Y		
PU2001, 5kW 50/60Hz		2019	CUMMINS POWER GENERATION; INC / Minneapolis, MN	SS / FFP	ACC-APG, Belvoir	Feb 2019	Feb 2020	286	29.000	Y		
PU2001, 5kW 50/60Hz		2020	CUMMINS POWER GENERATION; INC / Minneapolis, MN	SS / FFP	ACC-APG, Belvoir	Feb 2020	Feb 2021	95	32.000	Y		
PU2001, 5kW 50/60Hz		2021	CUMMINS POWER GENERATION; INC / Minneapolis, MN	SS / FFP	ACC-APG, Belvoir	Feb 2021	Feb 2022	360	23.000	Y		
PU2001, 5kW 50/60Hz		2022	CUMMINS POWER GENERATION; INC / Minneapolis, MN	SS / FFP	ACC- APG, Belvoir	Feb 2022	Feb 2023	93	24.000	Y		
PU2002, 10kW 50/60Hz		2018	CUMMINS POWER GENERATION; INC / Minneapolis, MN	SS / FFP	ACC-APG, Belvoir	Sep 2018	Oct 2019	130	27.000	Y		
PU2002, 10kW 50/60Hz		2019	CUMMINS POWER GENERATION; INC / Minneapolis, MN	SS / FFP	ACC-APG, Belvoir	Feb 2019	Feb 2020	165	32.103	Y		
PU2002, 10kW 50/60Hz		2020	CUMMINS POWER GENERATION; INC / Minneapolis, MN	SS / FFP	ACC-APG, Belvoir	Feb 2020	Feb 2021	85	35.000	Y		
PU2002, 10kW 50/60Hz		2021	CUMMINS POWER GENERATION; INC / Minneapolis, MN	SS / FFP	ACC-APG, Belvoir	Feb 2021	Feb 2022	200	26.000	Y		
PU2002, 10kW 50/60Hz		2022	CUMMINS POWER GENERATION; INC / Minneapolis, MN	SS / FFP	ACC-APG, Belvoir	Feb 2022	Feb 2023	87	26.299	Y		
PU2003, 15kW/60Hz, LTT		2019	CUMMINS POWER GENERATION; INC / Minneapolis, MN	SS / FFP	ACC-APG, Belvoir	Feb 2019	Feb 2020	30	35.000	Y		
PU2003, 15kW/60Hz, LTT		2020	CUMMINS POWER GENERATION; INC / Minneapolis, MN	SS / FFP	ACC-APG, Belvoir	Feb 2020	Feb 2021	89	38.000	Y		
PU2003, 15kW/60Hz, LTT		2021	CUMMINS POWER GENERATION; INC / Minneapolis, MN	SS / FFP	ACC-APG, Belvoir	Feb 2021	Feb 2022	60	28.000	Y		
PU2003, 15kW/60Hz, LTT		2022	CUMMINS POWER GENERATION; INC / Minneapolis, MN	SS / FFP	ACC-APG,Belvoir	Feb 2022	Feb 2023	15	29.000	Y		
PU2101, 15kW 50/60Hz, M200		2018	CUMMINS POWER GENERATION; INC / Minneapolis, MN	SS / FFP	ACC-APG, Belvoir	Sep 2018	Oct 2019	35	46.743	Y		
PU2101, 15kW 50/60Hz, M200		2019	CUMMINS POWER GENERATION; INC / Minneapolis, MN	SS / FFP	ACC-APG, Belvoir	Feb 2019	Feb 2020	260	36.000	Y		
PU2101, 15kW 50/60Hz, M200		2021	CUMMINS POWER GENERATION; INC / Minneapolis, MN	SS / FFP	ACC-APG, Belvoir	Feb 2021	Feb 2022	220	28.000	Y		
PU2101, 15kW 50/60Hz, M200		2022	CUMMINS POWER GENERATION; INC / Minneapolis, MN	SS / FFP	ACC-APG, Belvoir	Feb 2022	Feb 2023	56	28.304	Y		
PU2102, 30kW 50/60Hz		2018	CUMMINS POWER GENERATION; INC / Minneapolis, MN	SS / FFP	ACC-APG, Belvoir	Sep 2018	Oct 2019	25	44.640	Y		

Exhibit P-5a, Procurement History and Planning: PB 2022 Army		Date: May 2021
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
PU2102, 30kW 50/60Hz		2019	CUMMINS POWER GENERATION; INC / Minneapolis, MN	SS / FFP	ACC-APG, Belvoir	Feb 2019	Feb 2020	130	40.000	Y		
PU2102, 30kW 50/60Hz		2021	CUMMINS POWER GENERATION; INC / Minneapolis, MN	SS / FFP	ACC-APG,Belvoir	Feb 2021	Feb 2022	50	31.500	N		
PU2102, 30kW 50/60Hz		2022	CUMMINS POWER GENERATION; INC / Minneapolis, MN	SS / FFP	ACC-APG, Belvoir	Feb 2022	Feb 2023	25	32.200	Y		
PU2103, 60kW/60Hz		2019	CUMMINS POWER GENERATION; INC / Minneapolis, MN	SS / FFP	ACC-APG, Belvoir	Feb 2019	Feb 2020	150	39.000	Y		
PU2103, 60kW/60Hz		2021	CUMMINS POWER GENERATION; INC / Minneapolis, MN	SS / FFP	ACC-APG,Belvoir	Feb 2021	Feb 2022	50	37.000	N		
PU2103, 60kW/60Hz		2022	CUMMINS POWER GENERATION; INC / Minneapolis, MN	SS / FFP	ACC-APG,Belvoir	Feb 2022	Feb 2023	25	37.520	Y		
PU 2111, 15Kw/400Hz		2019	CUMMINS POWER GENERATION; INC / Minneapolis, MN	SS / FFP	ACC-APG, Belvoir	Feb 2019	Feb 2020	30	36.000	Y		
PU2112, 30kW 400Hz		2018	CUMMINS POWER GENERATION; INC / Minneapolis, MN	SS / FFP	ACC-APG, Belvoir	Sep 2018	Oct 2019	30	38.567	Y		
PU2112, 30kW 400Hz		2019	CUMMINS POWER GENERATION; INC / Minneapolis, MN	SS / FFP	ACC-APG, Belvoir	Feb 2019	Feb 2020	26	43.000	Y		
PU2112, 30kW 400Hz		2022	CUMMINS POWER GENERATION; INC / Minneapolis, MN	SS / FFP	ACC-APG, Belvoir	Feb 2022	Feb 2023	3	41.333	Y		
PP3001, two 5kW 50/60Hz, LTT		2018	CUMMINS POWER GENERATION; INC / Minneapolis, MN	SS / FFP	ACC-APG, Belvoir	Sep 2018	Oct 2019	26	51.308	Y		
PP3001, two 5kW 50/60Hz, LTT		2019	CUMMINS POWER GENERATION; INC / Minneapolis, MN	SS / FFP	ACC-APG, Belvoir	Feb 2019	Feb 2020	84	55.000	Y		
PP3001, two 5kW 50/60Hz, LTT		2020	CUMMINS POWER GENERATION; INC / Minneapolis, MN	SS / FFP	ACC-APG, Belvoir	Feb 2020	Feb 2021	6	59.000	Y		
PP3001, two 5kW 50/60Hz, LTT		2022	CUMMINS POWER GENERATION; INC / Minneapolis, MN	SS / FFP	ACP-APG, Belvoir	Feb 2022	Feb 2023	6	49.333	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, Belvoir	Feb 2019	Feb 2020	15	63.000	Y		
PP3003, two 15kW 50/60Hz		2020	CUMMINS POWER GENERATION; INC / Minneapolis, MN	SS / FFP	ACC-APG, Belvoir	Feb 2020	Feb 2021	3	75.000	Y		
PP3003, two 15kW 50/60Hz		2021	CUMMINS POWER GENERATION; INC / Minneapolis, MN	SS / FFP	ACC-APG,Belvoir	Feb 2021	Feb 2022	45	62.000	Y		
PP3003, two 15kW 50/60Hz		2022	CUMMINS POWER GENERATION; INC / Minneapolis, MN	SS / FFP	ACC, APG, Belvoir	Feb 2022	Feb 2023	2	63.000	Y		

Exhibit P-5a, Procurement History and Planning: PB 2022 Army		Date: May 2021
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
PP3102, two 10kW 50/60Hz		2018	CUMMINS POWER GENERATION; INC / Minneapolis, MN	SS / FFP	ACC-APG, Belvoir	Sep 2018	Oct 2019	35	150.314	Y		
PP3102, two 10kW 50/60Hz		2019	CUMMINS POWER GENERATION; INC / Minneapolis, MN	SS / FFP	ACC-APG, Belvoir	Feb 2019	Feb 2020	92	61.000	Y		
PP3102, two 10kW 50/60Hz		2021	CUMMINS POWER GENERATION; INC / Minneapolis, MN	SS / FFP	ACC-APG, Belvoir	Feb 2021	Feb 2022	60	55.500	Y		
PP3102, two 10kW 50/60Hz		2022	CUMMINS POWER GENERATION; INC / Minneapolis, MN	SS / FFP	ACC, APG, Belvoir	Feb 2022	Feb 2023	7	56.000	Y		
PP3105, two 30kW 50/60Hz		2018	CUMMINS POWER GENERATION; INC / Minneapolis, MN	SS / FFP	ACC-APG, Belvoir	Sep 2018	Oct 2019	10	820.100	Y		
PP3105, two 30kW 50/60Hz		2019	CUMMINS POWER GENERATION; INC / Minneapolis, MN	SS / FFP	ACC-APG, Belvoir	Feb 2019	Feb 2020	70	70.000	Y		
PP3105, two 30kW 50/60Hz		2021	CUMMINS POWER GENERATION; INC / Minneapolis, MN	SS / FFP	ACC=APG,Belvoir	Feb 2021	Feb 2022	43	68.000	Y		
PP3105, two 30kW 50/60Hz		2022	CUMMINS POWER GENERATION; INC / Minneapolis, MN	SS / FFP	ACC-APG, Belvoir	Feb 2022	Feb 2023	3	69.000	Y		
PP3106, two 60kW 50/60Hz		2018	CUMMINS POWER GENERATION; INC / Minneapolis, MN	SS / FFP	ACC-APG, Belvoir	Sep 2018	Oct 2019	40	82.300	Y		
PP3106, two 60kW 50/60Hz		2019	CUMMINS POWER GENERATION; INC / Minneapolis, MN	SS / FFP	ACC-APG, Belvoir	Feb 2019	Feb 2020	42	83.000	Y		
PP3106, two 60kW 50/60Hz		2021	CUMMINS POWER GENERATION; INC / Minneapolis, MN	SS / FFP	ACC-APG,Belvoir	Feb 2021	Feb 2022	57	81.000	N		
PP3106, two 60kW 50/60Hz		2022	CUMMINS POWER GENERATION; INC / Minneapolis, MN	SS / FFP	ACC-APG, Belvoir	Feb 2022	Feb 2023	3	83.000	Y		

Exhibit P-5, Cost Analysis: PB 2022 Army		Date: May 2021
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 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	16.102	0.230	-	-	-	-
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	16.102	0.230	-	-	-	-
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**16.102**	**0.230**	**-**	**-**	**-**	**-**
(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 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 Total		
	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	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	-	-	0.666	-	-	0.230	-	-	-	-	-	-	-	-	-	-	-	-
2. Engineering Change Orders	-	-	0.010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3. Testing	-	-	0.020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4.System Fielding Support	-	-	0.030	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5. Systems Assesment	-	-	0.050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6. Logistics Support	-	-	0.210	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7. Data	-	-	0.100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8. PM Management Support	-	-	1.146	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Recurring Cost	-	-	*2.232*	-	-	*0.230*	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Flyaway Cost	**-**	**-**	***2.232***	**-**	**-**	***0.230***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Hardware Cost																		
Recurring Cost																		
LAMPS 100kW Skid	79.237	38	3.011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LAMPS 100kW Power Unit	94.456	79	7.462	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LAMPS PDU	51.470	66	3.397	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Recurring Cost	-	-	*13.870*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Hardware Cost	**-**	**-**	***13.870***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**

Exhibit P-5, Cost Analysis: PB 2022 Army		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 60	**P-1 Line Item Number / Title:** 0426MA9800 / Generators And Associated Equip	**Item Number / Title [DODIC]:** R61510 / Large Advanced Mobile Power
ID Code (A=Service Ready, B=Not Service Ready) :	**MDAP/MAIS Code:**	

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

Cost Elements	Prior Years			FY 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 Total		
	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	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	-	-	16.102	-	-	0.230	-	-	-	-	-	-	-	-	-	-	-	-

Secondary Distribution		FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Army	Quantity	-	-	-	-	-
	Total Obligation Authority	0.230	-	-	-	-
Total: Secondary Distribution	**Quantity**	-	-	-	-	-
	Total Obligation Authority	0.230	-	-	-	-

Exhibit P-5, Cost Analysis: PB 2022 Army		Date: May 2021
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 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Procurement Quantity *(Units in Each)*	-	-	408	-	-	-
Gross/Weapon System Cost *($ in Millions)*	28.449	7.386	9.389	1.554	-	1.554
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	28.449	7.386	9.389	1.554	-	1.554
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**28.449**	**7.386**	**9.389**	**1.554**	**-**	**1.554**
(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)*	-	-	23.012	-	-	-

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

Cost Elements	Prior Years			FY 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 Total		
	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)
Flyaway Cost																		
Recurring Cost																		
1. Engineering Support	-	-	7.483	-	-	2.210	-	-	1.359	-	-	0.200	-	-	-	-	-	0.200
2. Engineering Change Orders	-	-	0.126	-	-	-	-	-	0.026	-	-	0.020	-	-	-	-	-	0.020
3. Testing	-	-	0.494	-	-	0.699	-	-	0.079	-	-	-	-	-	-	-	-	-
4. System Assessment	-	-	1.086	-	-	0.172	-	-	0.149	-	-	-	-	-	-	-	-	-
5. Logistic Support	-	-	1.144	-	-	0.206	-	-	1.500	-	-	0.010	-	-	-	-	-	0.010
6. Data	-	-	2.076	-	-	-	-	-	0.184	-	-	0.020	-	-	-	-	-	0.020
7. PM Management Support	-	-	14.720	-	-	3.436	-	-	0.532	-	-	0.554	-	-	-	-	-	0.554
G18358 3kW/60Hz TQG Generator(†)	15.000	88	1.320	26.500	25	0.663	20.000	278	5.560	25.000	30	0.750	-	-	-	25.000	30	0.750
Subtotal: Recurring Cost	-	-	*28.449*	-	-	*7.386*	-	-	*9.389*	-	-	*1.554*	-	-	-	-	-	*1.554*
Subtotal: Flyaway Cost	**-**	**-**	***28.449***	**-**	**-**	***7.386***	**-**	**-**	***9.389***	**-**	**-**	***1.554***	**-**	**-**	**-**	**-**	**-**	***1.554***
Gross/Weapon System Cost	**-**	**-**	**28.449**	**-**	**-**	**7.386**	**23.012**	**408**	**9.389**	**-**	**-**	**1.554**	**-**	**-**	**-**	**-**	**-**	**1.554**

Remarks:
P40 incorrectly reflects the quantity of 0 for FY20; quantity should reflect 25.
P40 incorrectly reflects the quantity of 408 for FY21 and it should reflect 278.
P40 incorrectly reflects the quantity of 0 for FY22 and it should reflect 30.
Cost elements revised for FY21 based on an increase to the estimate of the unit cost of the 3kW. Final year unit cost was $13.6K in previous contract negotiated in FY12. Unit cost now expected at $25K.

Exhibit P-5, Cost Analysis: PB 2022 Army		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 60	**P-1 Line Item Number / Title:** 0426MA9800 / Generators And Associated Equip	**Item Number / Title [DODIC]:** R63510 / Small Tactical Electric Power
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	

Secondary Distribution		FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Army	Quantity	-	408	-	-	-
	Total Obligation Authority	7.386	9.389	1.554	-	1.554
Total: Secondary Distribution	**Quantity**	**-**	**408**	**-**	**-**	**-**
	Total Obligation Authority	**7.386**	**9.389**	**1.554**	**-**	**1.554**

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2022 Army		**Date:** May 2021
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 / FFP	ACC-APG	Sep 2019	Mar 2020	88	15.000	Y		
G18358 3kW/60Hz TQG Generator		2020	TBD / TBD	C / FFP	ACC-APG	Sep 2020	Apr 2021	25	26.500	Y		
G18358 3kW/60Hz TQG Generator		2021	TBD / TBD	C / FFP	ACC-APG	Oct 2021	Jun 2022	278	20.000	N		
G18358 3kW/60Hz TQG Generator		2022	TBD / TBD	C / FFP	ACC-APG	Mar 2022	Sep 2022	30	25.000	N		

Remarks:
Shift in 3kW TQG re-buy FY21 contract award date due to higher priority items allowing for further design improvements.

Exhibit P-40, Budget Line Item Justification: PB 2022 Army	Date: May 2021
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 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026	To Complete	Total
Procurement Quantity *(Units in Each)*	2	12	30	17	-	17	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	38.055	14.814	22.216	10.500	-	10.500	-	-	-	-	-	-
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	38.055	14.814	22.216	10.500	-	10.500	-	-	-	-	-	-
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**38.055**	**14.814**	**22.216**	**10.500**	**-**	**10.500**	**-**	**-**	**-**	**-**	**-**	**-**
(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)*	19,027.500	1,234.500	740.533	617.647	-	617.647	-	-	-	-	-	-

Description:

This line supports the Army Air and Missile Defense Modernization Strategy, Priority #5. This line provides power generation and distribution that enables the Army to employ Air and Missile Defense systems across the operational spectrum.

The Deployable Power Generation and Distribution System (DPGDS) Power Unit (PU) provides mission critical power to the Nation's strategic missile defense assets; specifically the AN/TPY-2 X-Band Transportable Radar in Forward-Based Mode (FBM) . These radars are critical in detecting, classifying and tracking ballistic missiles. The power unit is also used by the Army's only Prime Power Battalion to support its National Response Framework (NRF) mission, providing DoD support to civil defense. The recapitalization effort leverages significant technology advancements over past 15 years and extends the economic useful life of these PUs by bringing the set back to zero hours.

The recapitalized MEP-PU-810 will come in two variants, the MEP-PU-810C, a towed trailer configuration, and the MEP-PU-810D, a 5th wheel configuration DoT approved for over the road use at 55 mph. Throughout the Department of Defense there are 165 'A' Models and 66 'B' Models supporting numerous missions, such as supporting the nation's Ballistic Missile Defense System.

Capabilities:
Once fielded, the MEP-PU-810C/D Power Unit (PU) will be at the center of the Army's Deployable Power Generation and Distribution System (DPGDS)
Portable, multi-fuel engine driven generator rated to provide 800kW of electrical power at 4160 Volts Alternating Current (VAC)
Completely self-contained, integrated trailer
Capable of operating standalone or in a multi-unit Microgrid configuration
Equipped with modern, built-in controls & its own electrical distribution bus
High Altitude Electromagnetic Pulse (HEMP) hardened

Secondary Distribution		FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026
Army	Quantity	12	30	17	-	17	-	-	-	-
	Total Obligation Authority	14.814	22.216	10.500	-	10.500	-	-	-	-

Exhibit P-40, Budget Line Item Justification: PB 2022 Army	Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 60: Generators	**P-1 Line Item Number / Title:** 9012R42501 / Tactical Electric Power Recapitalization

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

Line Item MDAP/MAIS Code: N/A

Secondary Distribution		FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026
Total: Secondary Distribution	Quantity	12	30	17	-	17	-	-	-	-
	Total Obligation Authority	14.814	22.216	10.500	-	10.500	-	-	-	-

Exhibit P-40, Budget Line Item Justification: PB 2022 Army	Date: May 2021
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 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/ MAIS Code	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)
P-5	R42511 / RECAP of DPGDS (840k)	P-5a, P-21			2 / 38.055	12 / 14.814	30 / 22.216	17 / 10.500	- / -	17 / 10.500
P-40	**Total Gross/Weapon System Cost**				**2 / 38.055**	**12 / 14.814**	**30 / 22.216**	**17 / 10.500**	**- / -**	**17 / 10.500**

*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 2022 Base procurement dollars of $10.500 million will procure power units to support continuation of the DPGDS PU Recapitalization production and fielding.

Power Units supporting the AN/TPY-2 Forward-Based Mode (FBM) radar sites are at or are quickly approaching overhaul thresholds-taxing the 249th EN BN to complete/manage repairs and increasing the urgency of the recap effort

Once fielded, the MEP-PU-810C/D will be the center of the U.S. Army's Deployable Power Generation & Distribution System (DPGDS). The system enables the U.S. Army Corps of Engineer's support to the National Resource Framework (NRF) for Disaster Relief and contingency operations.

This program extends the service life, stabilizes the rate of the growth of operating and support costs, improves reliability, maintainability, availability safety and the efficiency of the existing fleet. Subsequently, the RECAP leverages the tremendous advancement in technology and will consist primarily of integrating readily available, commercially proven components into an existing ruggedized package.

Large production peak in FY21 to field assets to the FBM sites quickly as legacy assets quickly approach overhaul requirements (13,000 engine hours). FBM assets are critical to the nation's Ballistic Missile Defense System (BMDS). In result; the need for fielding support is expected to rapidly grow. These funds in FY22 will allow and facilitate the program with the ability to efficiently meet demand for those items procured in FY21.

In addition to the Power Unit, the OPA funds will also procure Investment Spares, Initial Spares and Mission Readiness Support Package (MRSP) Kits.

Exhibit P-5, Cost Analysis: PB 2022 Army		Date: May 2021
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 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Procurement Quantity *(Units in Each)*	2	12	30	17	-	17
Gross/Weapon System Cost *($ in Millions)*	38.055	14.814	22.216	10.500	-	10.500
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	38.055	14.814	22.216	10.500	-	10.500
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**38.055**	**14.814**	**22.216**	**10.500**	**-**	**10.500**
(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)*	19,027.500	1,234.500	740.533	617.647	-	617.647

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

Cost Elements	Prior Years			FY 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 Total		
	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	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	-	-	7.683	-	-	0.990	-	-	0.760	-	-	0.754	-	-	-	-	-	0.754
Engineering Change Orders	-	-	1.050	-	-	0.450	-	-	0.290	-	-	-	-	-	-	-	-	-
Testing	-	-	16.690	-	-	0.310	-	-	0.280	-	-	0.120	-	-	-	-	-	0.120
System Fielding Support	-	-	-	-	-	0.860	-	-	0.450	-	-	0.303	-	-	-	-	-	0.303
Logistics Support	-	-	5.528	-	-	0.490	-	-	0.525	-	-	0.300	-	-	-	-	-	0.300
Data	-	-	0.800	-	-	0.120	-	-	0.100	-	-	0.025	-	-	-	-	-	0.025
PM Management Support	-	-	5.461	-	-	1.994	-	-	1.931	-	-	1.000	-	-	-	-	-	1.000
System Assessment	-	-	0.082	-	-	0.500	-	-	0.480	-	-	-	-	-	-	-	-	-
Subtotal: Recurring Cost	-	-	*37.294*	-	-	*5.714*	-	-	*4.816*	-	-	*2.502*	-	-	-	-	-	*2.502*
Subtotal: Flyaway Cost	**-**	**-**	***37.294***	**-**	**-**	***5.714***	**-**	**-**	***4.816***	**-**	**-**	***2.502***	**-**	**-**	**-**	**-**	**-**	***2.502***
Hardware Cost																		
Recurring Cost																		
GENERATOR SET: DIESEL ENGINE MEP-810C	365.000	1	0.365	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GENERATOR SET: DIESEL ENGINE MEP-810D(†)	396.000	1	0.396	525.000	12	6.300	550.000	30	16.500	600.000	12	7.200	-	-	-	600.000	12	7.200
Initial spares and Mission Readiness	-	-	-	-	-	2.800	-	-	0.900	-	-	0.798	-	-	-	-	-	0.798

Exhibit P-5, Cost Analysis: PB 2022 Army		Date: May 2021
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 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 Total		
	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)
Spares Package (MRSP) Kits																		
Subtotal: Recurring Cost	-	-	*0.761*	-	-	*9.100*	-	-	*17.400*	-	-	*7.998*	-	-	-	-	-	*7.998*
Subtotal: Hardware Cost	**-**	**-**	***0.761***	**-**	**-**	***9.100***	**-**	**-**	***17.400***	**-**	**-**	***7.998***	**-**	**-**	**-**	**-**	**-**	***7.998***
Gross/Weapon System Cost	**19,027.500**	**2**	**38.055**	**1,234.500**	**12**	**14.814**	**740.533**	**30**	**22.216**	**617.647**	**17**	**10.500**	**-**	**-**	**-**	**617.647**	**17**	**10.500**

Remarks:
FY22 fund will support fielding recapitalized power units to the AN/TPY-2 Forward-Based Mode (FBM), Radar Sites worldwide
In addition to the PU, this effort purchases initial / investments spares, and Mission Readiness Spares Package (MRSP) Kits.

FBM assets are critical to the nation?s Ballistic Missile Defense System (BMDS)
Potential growth from Air and Missile Defense CFT modernization efforts with LTAMDS and THAAD.

Secondary Distribution		FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Army	Quantity	12	30	17	-	17
	Total Obligation Authority	14.814	22.216	10.500	-	10.500
Total: Secondary Distribution	**Quantity**	**12**	**30**	**17**	**-**	**17**
	Total Obligation Authority	**14.814**	**22.216**	**10.500**	**-**	**10.500**

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2022 Army		Date: May 2021
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-810D(†)		2020	PD Systems / Springfield,VA	C / FFP	ACC-APG Fort Belvoir	Jun 2020	Jan 2021	12	525.000	Y		
GENERATOR SET: DIESEL ENGINE MEP-810D(†)		2021	PD Systems / Springfield,VA	C / FFP	ACC-APG Fort Belvoir	Apr 2021	Oct 2021	30	550.000	Y		
GENERATOR SET: DIESEL ENGINE MEP-810D(†)		2022	PD Systems / Springfield,VA	C / FFP	ACC-APG Fort Belvoir	Feb 2022	Aug 2022	12	600.000	Y		

(†) indicates the presence of a P-21

Remarks:
In addition to procuring the MEP-PU-810 C/D Power Unit, the OPA will also procure:
Investment Spares
Initial Spares
Mission Readiness Support Package (MRSP) Kits

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-21, Production Schedule: PB 2022 Army		Date: May 2021
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 (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	
GENERATOR SET: DIESEL ENGINE MEP-810D																															
Prior Years Deliveries: 1																															
	1	2020	ARMY	12	0	12									A -	-	-	-	-	-	-	2	2	2	2	2	2				0
	1	2021	ARMY	30	0	30																			A -	-	-	-	-	-	30
	1	2022	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 2022 Army		Date: May 2021
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 (Units in Each)							Fiscal Year 2022												Fiscal Year 2023												BALANCE
							Calendar Year 2022												Calendar Year 2023												
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2021	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	
GENERATOR SET: DIESEL ENGINE MEP-810D																															
Prior Years Deliveries: 1																															
	1	2020	ARMY	12	12	0																									0
	1	2021	ARMY	30	0	30	2	2	2	3	3	3	3	3	3	3	3														0
	1	2022	ARMY	12	0	12					A -	-	-	-	-	-	2	2	2	2	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 2022 Army		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 60	**P-1 Line Item Number / Title:** 9012R42501 / Tactical Electric Power Recapitalization	**Item Number / Title [DODIC]:** R42511 / RECAP of DPGDS (840k)

MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Year)			Procurement Leadtime (Months)							
					Initial				Reorder			
		MSR For 2022	1-8-5 For 2022	MAX For 2022	ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1	ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1
1	PD Systems - Springfield,VA	36	48	96	6	8	5	13	0	0	0	0

Remarks:
MEP- PU-810 A/B continue to experience parts obsolescence issues and sustainment challenges.
Currently, there is no depot capability.

"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 2022 Army	Date: May 2021
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 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026	To Complete	Total
Procurement Quantity *(Units in Each)*	211	164	162	117	-	117	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	104.555	19.016	17.995	13.325	-	13.325	-	-	-	-	-	-
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	104.555	19.016	17.995	13.325	-	13.325	-	-	-	-	-	-
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**104.555**	**19.016**	**17.995**	**13.325**	**-**	**13.325**	**-**	**-**	**-**	**-**	**-**	**-**
(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)*	495.521	115.951	111.080	113.889	-	113.889	-	-	-	-	-	-

Description:

The Family of Forklifts includes several platforms. Near-term procurements focus on modernizing the fleet through 5K Light Capability Rough Terrain Forklift (LCRTF) production and a replacement for the All-Terrain Lifter, Army System (ATLAS).

The 5K LCRTF supports Large Scale Combat Operations (LSCO) Gap: 10 Tactical and Sustainment Mobility by being the only rugged 5K forklift in the U.S. Army's inventory which can rapidly enter, pack, and unpack ISO containers, load and unload tactical vehicles and trailers, and lift and move light equipment and cargo. The LCRTF enables Maneuver, Maneuver Support, and Sustainment Units with the capabilities necessary to handle, transport, and stack materials. The LCRTF is required to clear landing zones of supplies and equipment, load and unload combat vehicles and aircraft as well as moving some artillery assets and supplies. The 5K LCRTF mission profile is 20 hours of operations in all types of environmental conditions. The 5K LCRTF system is a Critical Dual Use (CDU) system enabling and supporting Defense Support to Civil Authorities (DSCA) operations (i.e. Disaster Relief). It can be transported by C-130 aircraft and external sling load via CH47D helicopter. LCRTF is Low Velocity Air Drop (LVAD) capable. The 5K LCRT Forklift Army Acquisition Objective (AAO): 2,815 Systems. The minimum sustainment rate is 15 systems per month.

The All-Terrain Lifter, Army System (ATLAS) is a family of, C-130 airplane transportable 10,000 Pound (LB) capacity variable reach rough terrain forklifts. The ATLAS primary missions include handling all classes of supply, load and unload standard Army pallets in ISO containers, handling break-bulk cargo and loads weighing up to 10,000 LBS on Air Force 463L pallets. It is a key component to the Army's Container Oriented Distribution System which is essential to the deployment of an Expeditionary Army and sustainment of a deployed force. The ATLAS forklift mobility capabilities support all the Army's Brigade Combat Teams and units from seven branches (Transportation, Quartermaster, Ordnance, Missile & Munitions, Engineer, Aviation and Medical). Crew survivability is being addressed in accordance with the Army's Long Term Armor Strategy (ALTAS). The ATLAS is a military unique vehicle. It operates in all terrains, has cross country mobility and road speed of 23 Miles per Hour (MPH). Commercial forklifts cannot meet the military requirements nor the Key Performance Parameters (KPP) identified in the ATLAS requirements document. The ATLAS is capable of performing all mission requirements and meets EPA Tier III emissions requirements, with increased reliability and survivability. The ATLAS system is a CDU system enabling and supporting DSCA operations (i.e. Disaster Relief). ATLAS Army Acquisition Objective (AAO): 3,162 systems.

Secondary Distribution		FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026
Army	Quantity	34	70	59	-	59	-	-	-	-
	Total Obligation Authority	5.152	8.471	6.466	-	6.466	-	-	-	-

Exhibit P-40, Budget Line Item Justification: PB 2022 Army	Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 65: Material Handling Equipment	**P-1 Line Item Number / Title:** 5558G41001 / Family Of Forklifts

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

Line Item MDAP/MAIS Code: N/A

Secondary Distribution		FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026
ANG	Quantity	70	38	26	-	26	-	-	-	-
	Total Obligation Authority	7.465	3.945	2.919	-	2.919	-	-	-	-
AR	Quantity	60	54	32	-	32	-	-	-	-
	Total Obligation Authority	6.399	5.579	3.940	-	3.940	-	-	-	-
Total: Secondary Distribution	**Quantity**	**164**	**162**	**117**	**-**	**117**	**-**	**-**	**-**	**-**
	Total Obligation Authority	**19.016**	**17.995**	**13.325**	**-**	**13.325**	**-**	**-**	**-**	**-**

Exhibit P-40, Budget Line Item Justification: PB 2022 Army		Date: May 2021
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 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/ MAIS Code	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*
P-5	G41002 / 5K LIGHT CAPABILITY ROUGH TERRAIN (LCRT) FORKLIFT	P-5a, P-21	A		211 / 104.555	164 / 19.016	162 / 17.995	117 / 13.325	- / -	117 / 13.325
P-40	**Total Gross/Weapon System Cost**				**211 / 104.555**	**164 / 19.016**	**162 / 17.995**	**117 / 13.325**	**- / -**	**117 / 13.325**

*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 2022 Base procurement dollars of $11.610 million will procure 97 Light Capability Rough Terrain Forklift (LCRTF) systems, program support, transportation, and fielding costs to support Base requirements.

FY 2022 Base procurement dollars of $1.715 million will procure 18 Light Capability Rough Terrain Forklift (LCRTF) systems, transportation, and fielding costs to support the Enduring Requirement for Operation Freedom Sentinel (OFS) Operation Spartan Shield (OSS).

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 2022 Army		Date: May 2021
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 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Procurement Quantity *(Units in Each)*	211	164	162	117	-	117
Gross/Weapon System Cost *($ in Millions)*	104.555	19.016	17.995	13.325	-	13.325
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	104.555	19.016	17.995	13.325	-	13.325
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**104.555**	**19.016**	**17.995**	**13.325**	**-**	**13.325**
(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)*	495.521	115.951	111.080	113.889	-	113.889

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

Cost Elements	Prior Years			FY 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 Total		
	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)
Flyaway Cost																		
Recurring Cost																		
Hardware(†)	65.905	1,513	99.714	78.099	171	13.355	79.139	187	14.799	82.821	117	9.690	-	-	-	82.821	117	9.690
System Engineering/ Program Management	-	-	1.247	-	-	0.240	-	-	0.561	-	-	1.116	-	-	-	-	-	1.116
System Test and Evaluation, Production	-	-	0.300	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Data	-	-	0.587	-	-	0.517	-	-	0.082	-	-	0.273	-	-	-	-	-	0.273
Support Equipment	7.273	44	0.320	-	-	0.976	-	-	1.002	-	-	0.445	-	-	-	-	-	0.445
Fielding	-	-	1.305	-	-	1.820	-	-	0.990	-	-	1.450	-	-	-	-	-	1.450
Engineering Changes	-	-	0.165	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fielding - Transportation FDT	-	-	0.917	-	-	0.439	-	-	0.561	-	-	0.351	-	-	-	-	-	0.351
Subtotal: Recurring Cost	-	-	*104.555*	-	-	*17.347*	-	-	*17.995*	-	-	*13.325*	-	-	-	-	-	*13.325*
Non Recurring Cost																		
BTR Reprogramming Action	-	-	-	-	-	1.669	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Non Recurring Cost	-	-	-	-	-	*1.669*	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Flyaway Cost	**-**	**-**	***104.555***	**-**	**-**	***19.016***	**-**	**-**	***17.995***	**-**	**-**	***13.325***	**-**	**-**	**-**	**-**	**-**	***13.325***
Gross/Weapon System Cost	**495.521**	**211**	**104.555**	**115.951**	**164**	**19.016**	**111.080**	**162**	**17.995**	**113.889**	**117**	**13.325**	**-**	**-**	**-**	**113.889**	**117**	**13.325**

Exhibit P-5, Cost Analysis: PB 2022 Army		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 65	**P-1 Line Item Number / Title:** 5558G41001 / Family Of Forklifts	**Item Number / Title [DODIC]:** G41002 / 5K LIGHT CAPABILITY ROUGH TERRAIN (LCRT) FORKLIFT
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	

Secondary Distribution		FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Army	Quantity	34	70	59	-	59
	Total Obligation Authority	5.152	8.471	6.466	-	6.466
ANG	Quantity	70	38	26	-	26
	Total Obligation Authority	7.465	3.945	2.919	-	2.919
AR	Quantity	60	54	32	-	32
	Total Obligation Authority	6.399	5.579	3.940	-	3.940
Total: Secondary Distribution	**Quantity**	**164**	**162**	**117**	**-**	**117**
	Total Obligation Authority	**19.016**	**17.995**	**13.325**	**-**	**13.325**

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2022 Army		**Date:** May 2021
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(†)		2020	JCB Inc. / Pooler, GA	C / FFP	Detroit Arsenal, MI	Feb 2020	Feb 2021	171	78.099	N		
Hardware(†)		2021	JCB Inc. / Pooler, GA	C / FFP	Detroit Arsenal, MI	Mar 2021	Sep 2021	187	79.139	N		
Hardware(†)		2022	JCB Inc. / Pooler, GA	C / FFP	Detroit Arsenal, MI	Nov 2021	Jun 2022	117	82.821	N		

(†) indicates the presence of a P-21

Exhibit P-21, Production Schedule: PB 2022 Army		**Date:** May 2021
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: 1513																															
	1	2020	ARMY	171	0	171					A -	-	-	-	-	-	-	-	-	-	-	-	22	22	22	22	22	22	22	17	0
	1	2021	ARMY	187	0	187																		A -	-	-	-	-	-	5	182
	1	2022	ARMY	117	0	117																									117
							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 2022 Army		**Date:** May 2021
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 2022												Fiscal Year 2023												BALANCE
							Calendar Year 2022												Calendar Year 2023												
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2021	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: 1513																															
	1	2020	ARMY	171	171	0																									0
	1	2021	ARMY	187	5	182	22	22	22	22	22	22	22	22	6																0
	1	2022	ARMY	117	0	117		A -	-	-	-	-	-	-	16	22	22	22	22	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 2022 Army		Date: May 2021
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 2022	1-8-5 For 2022	MAX For 2022	ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1	ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1
1	JCB Inc. - Pooler, GA	15	17	50	0	3	6	9	0	1	6	7

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

Exhibit P-40, Budget Line Item Justification: PB 2022 Army	Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 70: Training Equipment	**P-1 Line Item Number / Title:** 1780MA6600 / Combat Training Centers Support

ID Code (A=Service Ready, B=Not Service Ready):	**Program Elements for Code B Items:** N/A	**Other Related Program Elements:** 0604715A

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026	To Complete	Total
Procurement Quantity *(Units in Each)*	2,242	2,135	163	2,195	-	2,195	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	1,819.820	125.411	90.580	79.565	-	79.565	-	-	-	-	-	-
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	1,819.820	125.411	90.580	79.565	-	79.565	-	-	-	-	-	-
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**1,819.820**	**125.411**	**90.580**	**79.565**	**-**	**79.565**	**-**	**-**	**-**	**-**	**-**	**-**
(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)*	811.695	58.741	555.706	36.248	-	36.248	-	-	-	-	-	-

Description:

The Combat Training Centers (CTCs) are the Army's premiere collective training centers. The CTCs provide high-fidelity Live, Virtual and Constructive (LVC) Brigade training rotations which prepare Brigade Combat Teams, Joint partners, and supporting units to deploy in support of the Army's Sustainable Readiness Model (SRM). The CTC program supports the National Training Center (NTC), the Joint Readiness Training Center (JRTC), and the Joint Multinational Readiness Center (JMRC). The CTCs primary goal is to develop agile and adaptive leaders at the tactical, operational and strategic levels while providing BCTs the core training necessary to conduct decisive action in a dynamic operating environment.

The Combat Training Center Instrumentation System (CTC-IS) is a communications, analysis and feedback system that provides a realistic operational environment for training the Brigade Combat Team (BCT) and below in preparation for deployment to conduct Unified Land Operations (ULO). It is comprised of voice, video, and data instrumentation subsystem networks that include software, hardware, work stations, base-station equipment, communications infrastructure, voice radios, data devices, and interfaces. The Instrumentation System provides the Combat Trainer (CT) critical situational awareness for training safety, analysis, and feedback capabilities to conduct After Action Reviews (AARs).

The Combat Training Center LIVE FIRE Modernization (CTC LIVE FIRE MOD) provides Future Army System of Integrated Targets (FASIT) qualified live-fire capable targets: stationary armor targets (SAT) with accompanying battlefield effects simulators (BES); stationary infantry targets (SIT); human urban targets (HUT); double-arm SIT's; moving infantry targets (MIT); and non-FASIT qualified Aviation 3-D and Unattended Aerial Systems (UAS) targets which provide a capability for the CTCs to support the transition from Mission Rehearsal Exercise/Situational Training Exercise (MRE/ST) rotations to Unified Land Operations (ULO) against a hybrid threat.

Training Aircraft Survivability Equipment (ASE) Stimulation Suite (TASS) is a live training system consisting of aircraft components and ground emitters that replicate current and emerging enemy Air Defense systems. Its fidelity supports individual pilot training as well as the collective training requirements of the Brigade Combat Team (BCT) to fully plan, prepare, execute and react against an enemy air defense weapons at the Combat Training Centers (CTC). The Integrated Air Defense System Radar Signal Emulator (RSE) replicates an enemy multi-layered, short range, medium and high altitude air-defense system to execute unified land operations against the current or projected threat.

Opposing Forces (OPFOR) Surrogate Vehicles (OSV) Tank Thermal Sights (TTS) replaces obsolete and unsustainable M60 TTSs at the Combat Training Centers (CTCs). The existing sights are causing operational issues specifically at NTC where approximately half of their fleet has non-functional TTSs. With the current Operational Environment, US Army units must train against forces that have near peer capabilities which the current TTS system does not meet. This program will provide a near peer TTS that is common to today's M1 Abrams Tanks and M2 Bradley's (Block 1 Version 2nd Generation Forwarding Looking Infrared (FLIR)) which will allow the CTCs' OPFOR to fight safely at night.

Exhibit P-40, Budget Line Item Justification: PB 2022 Army		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 70: Training Equipment	**P-1 Line Item Number / Title:** 1780MA6600 / Combat Training Centers Support	
ID Code (A=Service Ready, B=Not Service Ready):	**Program Elements for Code B Items:** N/A	**Other Related Program Elements:** 0604715A
Line Item MDAP/MAIS Code: N/A		

The Opposing Forces (OPFOR) Vehicles program consists of two variants, the Opposing Forces Surrogate Training System Main Battle Tank (OSTS-MBT) and the Opposing Surrogate Vehicle. They are used in force on force training as the OPFOR in active battle scenarios. Both vehicles are based on the M113 platform with an added turret and other modifications for opposing force visual recognition; to look like an opposing force combat vehicle.

The OPFOR Surrogate Wheeled Vehicles (OSWV) program procures technical wheeled vehicles, unique Visual Modifications (VISMODs), and Civilian on the Battlefield Vehicles (COBVs). This capability provides for a more realistic replication of OPFOR and Civilians on the Battlefield (COB) vehicle environment that rotational units must train against.

Independent Commercially Compatible Cellular Network System (IC3NS) provides a closed loop, commercially available cell phone communications infrastructure at the Maneuver Combat Training Centers (CTCs) that portrays the OPFOR cellular telephone phone network portion of the Operating Environment to allow BCTs to train on exploit/defeat the network tasks.

The Direct Injection Jammer (DIJ) program provides a suite of multifunctional products for threat realistic Electronic Warfare (EW) and Space training at the Maneuver Combat Training Centers (MCTCs).The DIJ is both a jammer and instrumentation. The DIJ utilizes a methodology that enables operationally realistic EW training to occur when spectrum limitations prevent or limit the use of open-air jammers. As instrumentation, the DIJ provides near-real time jammer verification and other pertinent data over a wireless network to help train and instruct Rotational Training Units (RTUs) at an After Action Review (AAR) or provide Combat Training Centers (CTCs) with the ability to monitor data and shape training as needed.

The Opposing Forces (OPFOR) Attack Aircraft Shoot-back Capability (OA2SBC) program procures and installs instrumentation capabilities on the Light Utility Helicopter (LUH) and for the Instrumentation System (IS) to track newly fielded Light Utility Helicopters (LUH) performing Observer/Controller (OC) and Opposing Forces (OPFOR) roles at the three CTCs. The CTC Aviation program provides the capabilities to communicate with LUH organic onboard radios via the CTC ground-based Observer Controller Communications Systems (OCCS). The OPFOR capability provides a high-fidelity threat to the BLUFOR in training at the CTCs and the OC capability provides and aids the control of the CTC exercises to ultimately achieve the objective of improved and sustained readiness of the force.

Secondary Distribution		FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026
Army	Quantity	2,135	163	2,195	-	2,195	-	-	-	-
	Total Obligation Authority	125.411	90.580	79.565	-	79.565	-	-	-	-
Total: Secondary Distribution	**Quantity**	**2,135**	**163**	**2,195**	**-**	**2,195**	**-**	**-**	**-**	**-**
	Total Obligation Authority	**125.411**	**90.580**	**79.565**	**-**	**79.565**	**-**	**-**	**-**	**-**

Exhibit P-40, Budget Line Item Justification: PB 2022 Army	Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 70: Training Equipment	**P-1 Line Item Number / Title:** 1780MA6600 / Combat Training Centers Support

ID Code (A=Service Ready, B=Not Service Ready):	Program Elements for Code B Items: N/A	Other Related Program Elements: 0604715A

Line Item MDAP/MAIS Code: N/A

Exhibits Schedule					Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/ MAIS Code	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)
P-5	MA6601 / Combat Training Centers (CTC) Support	P-5a, P-21			2,242 / 1,819.820	2,135 / 125.411	163 / 90.580	2,195 / 79.565	- / -	2,195 / 79.565
P-40	**Total Gross/Weapon System Cost**				**2,242 / 1,819.820**	**2,135 / 125.411**	**163 / 90.580**	**2,195 / 79.565**	**- / -**	**2,195 / 79.565**

*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 2022 Base procurement dollars in the amount of $79.565 million supports the following efforts:

FY 2022 Combat Training Center Instrumentation System (CTC-IS) Base procurement dollars in the amount of $51.152 million procures essential lifecycle activities on the existing subsystems of the fielded Instrumentation Systems located at the National Training Center (NTC), Joint Readiness Training Center (JRTC), and the Joint Multinational Readiness Center (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. Modernization efforts include Development of a software defined radio to replace tactical radios at all CTCs, to reduce future costs. Installing a Spectrum Management Subsystem at the JRTC, to prevent disruption of commercial communications. Increase player units to 5,500 at JMRC, upgrade the Range Data Measurement System (RDMS) Network, and replace live fire cameras and other infrastructure.

FY 2022 OPFOR Integrated Air Defense System (IADS) Base procurement dollars in the amount of $1.418 million procures interim contractor support and post deployment software support in support of opposing threat training at the National Training Center, Joint Readiness Training Center and the Joint Multinational Readiness Center.

FY 2022 IADS Radar Signal Emitter (RSE) base procurement dollars in the amount of $5.243 million procures one complete IADS-RSE system and provides the initial funding for CTC integration. The IADS-RSE System consist of an Array Module with Target Acquisition Radar (TAR), Target Engagement Radar (TER) facade, Power Generation System (PGS), and Thermal Management System (TMS).

FY 2022 OPFOR Surrogate Wheeled Vehicles (OSWV) program Base procurement dollars in the amount of $12.464 million procures 20 tactical vehicle VISMODs for NTC, JRTC and JMRC. Additionally, the funds will cover Basic Issue Items, Spares and Interim Contract Support to include Field Level Maintenance and New Equipment Training.

FY 2022 Independent Commercially Compatible Cellular Network System (IC3NS) base procurement dollars in the amount of $1.780 million will be used to perform installation work at the Joint Readiness Training Center (JRTC) for the 4G LTE equipment. Additionally, the funds will provide engineering support, maintenance, licensing costs, and service level agreements for the IC3NS program.

FY 2022 base procurement dollars for Direct Injection Jammer in the amount of $7.508 million procures and provides a suite of multifunctional products for threat realistic Electronic Warfare and Space training at the Maneuver Combat Training Centers. The funds procures 1,070 Direct Injection Jammers.

In FY 2021, Combat Training Center Live Fire Modernization (CTC Live Fire Mod) was moved from SSN MA6601 to NA0105 - Ranges and Targets. On 21 April 2019, the Future Army System of Integrated Targets (FASIT) Capability Production Document was approved. After the FASIT program is formally established, it will subsume the following programs: Combat Training Center Live Fire Modernization (CTC Live Fire Mod), Target Modernization, and Army Targetry Systems (ATS).

FY 2022 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).

Exhibit P-5, Cost Analysis: PB 2022 Army		Date: May 2021
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 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Procurement Quantity *(Units in Each)*	2,242	2,135	163	2,195	-	2,195
Gross/Weapon System Cost *($ in Millions)*	1,819.820	125.411	90.580	79.565	-	79.565
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	1,819.820	125.411	90.580	79.565	-	79.565
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**1,819.820**	**125.411**	**90.580**	**79.565**	**-**	**79.565**
(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)*	811.695	58.741	555.706	36.248	-	36.248

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

Cost Elements	Prior Years			FY 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 Total		
	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	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(†)	35,715.667	3	107.147	2,600.000	6	15.600	-	-	-	12.881	1,102	14.195	-	-	-	12.881	1,102	14.195
Combat Training Center Instrumentation System (CTC-IS) Essential Lifecycle Activities	-	-	1,436.876	-	-	28.817	-	-	27.818	-	-	24.047	-	-	-	-	-	24.047
CTC LIVE FIRE MOD Stationary Infantry Targets (SIT) Kits(†)	-	-	-	8.970	642	5.759	-	-	-	-	-	-	-	-	-	-	-	-
CTC LIVE FIRE MOD Integration	-	-	-	-	-	1.781	-	-	-	-	-	-	-	-	-	-	-	-
CTC LIVE FIRE MOD Kits	10.357	3,645	37.752	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CTC MOUT-IS Continuous Tech Refresh	-	-	17.005	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CTC MOUT-IS Instrumentation	3,377.818	11	37.156	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
OPFOR Integrated Air Defense System (IADS) TASS	67.212	52	3.495	-	-	-	-	-	2.950	-	-	-	-	-	-	-	-	-

Exhibit P-5, Cost Analysis: PB 2022 Army		Date: May 2021
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 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 Total		
	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)
OPFOR Integrated Air Defense System (IADS) TASS Mobile VISMODS	-	-	-	-	-	4.100	-	-	5.730	-	-	-	-	-	-	-	-	-
OPFOR Integrated Air Defense System (IADS) TASS Interim Contract Support	-	-	-	-	-	-	-	-	-	-	-	0.495	-	-	-	-	-	0.495
OPFOR Integrated Air Defense System (IADS) TASS Initial Spares Package	-	-	-	-	-	2.540	-	-	-	-	-	-	-	-	-	-	-	-
OPFOR Integrated Air Defense System (IADS) RSE(†)	-	-	-	6,862.500	2	13.725	6,815.000	1	6.815	5,243.000	1	5.243	-	-	-	5,243.000	1	5.243
Opposing Forces (OPFOR) Surrogate Wheeled Vehicle (OSWV) Visual Modifications(†)	-	-	-	206.186	43	8.866	206.000	88	18.128	250.000	20	5.000	-	-	-	250.000	20	5.000
Opposing Forces (OPFOR) Surrogate Wheeled Vehicle (OSWV) Spares and Basic Issue Items	-	-	-	-	-	-	-	-	-	-	-	2.779	-	-	-	-	-	2.779
Opposing Forces (OPFOR) Surrogate Wheeled Vehicle (OSWV) Interim Contract Support	-	-	-	-	-	-	-	-	-	-	-	2.133	-	-	-	-	-	2.133
Opposing Forces (OPFOR) Surrogate Wheeled Vehicle (OSWV) Technical Vehicles(†)	-	-	-	50.000	34	1.700	50.000	69	3.450	-	-	-	-	-	-	-	-	-
Opposing Forces (OPFOR) Surrogate Wheeled Vehicle (OSWV) Thermal Sight Units	-	-	-	-	-	0.900	-	-	0.420	-	-	-	-	-	-	-	-	-
IC3NS HW Components(†)	2,241.000	2	4.482	1,621.000	2	3.242	1,519.000	2	3.038	890.000	2	1.780	-	-	-	890.000	2	1.780

Exhibit P-5, Cost Analysis: PB 2022 Army		Date: May 2021
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 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 Total		
	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)
Direct Injection Jammer (DIJ)(†)	-	-	-	-	-	-	-	-	-	7.017	1,070	7.508	-	-	-	7.017	1,070	7.508
EW/Space/Cyber(†)	600.000	3	1.800	3,818.000	3	11.454	3,051.333	3	9.154	-	-	-	-	-	-	-	-	-
Opposing Forces (OPFOR) Surrogate Vehicles (OSV) Tank Thermal Sights (TTS)(†)	168.475	238	40.097	680.636	22	14.974	-	-	-	-	-	-	-	-	-	-	-	-
Opposing Forces (OPFOR) Vehicles Conversion	884.615	26	23.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
OPFOR WEAPONS (MBT, OSV & SLM) kits	19.450	626	12.176	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
OPFOR Attack Aircraft Shoot-back Capability (OA2SBC)	-	-	-	-	-	-	-	-	0.469	-	-	-	-	-	-	-	-	-
CTC Aviation Shootback Kits	2,012.083	12	24.145	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Recurring Cost	-	-	*1,745.131*	-	-	*113.458*	-	-	*77.972*	-	-	*63.180*	-	-	-	-	-	*63.180*
Subtotal: Flyaway Cost	**-**	**-**	***1,745.131***	**-**	**-**	***113.458***	**-**	**-**	***77.972***	**-**	**-**	***63.180***	**-**	**-**	**-**	**-**	**-**	***63.180***
Software Cost																		
Recurring Cost																		
Combat Training Center Instrumentation System (CTC-IS) Post Deployment Software Support	-	-	12.941	-	-	6.016	-	-	6.613	-	-	9.451	-	-	-	-	-	9.451
OPFOR Integrated Air Defense System (IADS) LT2 Post Deployment Software Support	-	-	-	-	-	-	-	-	-	-	-	0.510	-	-	-	-	-	0.510
Subtotal: Recurring Cost	-	-	*12.941*	-	-	*6.016*	-	-	*6.613*	-	-	*9.961*	-	-	-	-	-	*9.961*
Subtotal: Software Cost	**-**	**-**	***12.941***	**-**	**-**	***6.016***	**-**	**-**	***6.613***	**-**	**-**	***9.961***	**-**	**-**	**-**	**-**	**-**	***9.961***
Logistics Cost																		
Recurring Cost																		
Opposing Forces (OPFOR) Surrogate Wheeled	-	-	-	-	-	1.597	-	-	2.322	-	-	2.384	-	-	-	-	-	2.384

Exhibit P-5, Cost Analysis: PB 2022 Army		Date: May 2021
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 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 Total		
	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)
Vehicle (OSWV) Transportation																		
Subtotal: Recurring Cost	-	-	-	-	-	*1.597*	-	-	*2.322*	-	-	*2.384*	-	-	-	-	-	*2.384*
Subtotal: Logistics Cost	**-**	**-**	**-**	**-**	**-**	***1.597***	**-**	**-**	***2.322***	**-**	**-**	***2.384***	**-**	**-**	**-**	**-**	**-**	***2.384***
Support - Program Management Cost																		
Contractor Management	-	-	61.749	-	-	4.340	-	-	3.673	-	-	4.040	-	-	-	-	-	4.040
Subtotal: Support - Program Management Cost	**-**	**-**	***61.749***	**-**	**-**	***4.340***	**-**	**-**	***3.673***	**-**	**-**	***4.040***	**-**	**-**	**-**	**-**	**-**	***4.040***
Gross/Weapon System Cost	**811.695**	**2,242**	**1,819.820**	**58.741**	**2,135**	**125.411**	**555.706**	**163**	**90.580**	**36.248**	**2,195**	**79.565**	**-**	**-**	**-**	**36.248**	**2,195**	**79.565**

Remarks:

There are multiple modernization efforts in the CTC-IS program, including development of a software defined radio to replace tactical radios at all CTCs, to reduce future costs. Installing a Spectrum Management Subsystem at the JRTC, increasing player units at JMRC, upgrading the Range Data Measurement System (RDMS) Network, and replacing live fire cameras and other infrastructure.
CTIS PDSS cost increase reflects new capabilities to include Video Sharing software, Aviation Gateway, SOC (Security Operations Center) support, remote support from the IDE (Integrated Development Environment) updates to the PDSS Labs software and hardware, complete Low Side Migration at JRTC/NTC to include video editing software, consolidate domains at the JRTC, update Tactical Computing Environment (TCE) Software with latest map Software and filtering capability to match latest CTC-IS Baseline, Configuring and installing latest 7.2 Baseline to include JLCCTC (Joint Land Component Constructive Training Capability)/ ORTS (OneSAF Radar Training Software), latest After Action Review (AAR) configuration, JMRC, JRTC and NTC, increased On Site Support ,integrating micro services, support HIGH ASSURANCE GUARD (HAG) and Common Domain Solution's at the JMRC, JRTC and NTC.

Increase in unit cost for Opposing Forces (OPFOR) Surrogate Wheeled Vehicle (OSWV) Visual Modifications due to Stryker vehicle visual modification production in FY 2022.

IADS TASS VISMODS FY 2020 costs covered development and initial production units. The FY 2021 costs cover the production of the bulk of the VISMODs to be produced for the program.

OA2SBC reached FOC in FY 2018 and is receiving a scheduled technology refresh in FY 2021. It will have another scheduled technology refresh in FY 2025.

Secondary Distribution		FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Army	Quantity	2,135	163	2,195	-	2,195
	Total Obligation Authority	125.411	90.580	79.565	-	79.565
Total: Secondary Distribution	**Quantity**	**2,135**	**163**	**2,195**	**-**	**2,195**
	Total Obligation Authority	**125.411**	**90.580**	**79.565**	**-**	**79.565**

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2022 Army		Date: May 2021
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(†)		2020	TBS (CTC IS) / TBS	C / FFP	ACC, Orlando, FL	Aug 2020	Jul 2021	6	2,600.000	Y		
Combat Training Center Instrumentation System (CTC-IS) Modernization(†)		2022	TBS (CTC IS) / TBS	C / FFP	ACC, Orlando, FL	May 2022	May 2023	1,102	12.881	Y		
CTC LIVE FIRE MOD Stationary Infantry Targets (SIT) Kits		2020	Theissen Training Systems Inc. / Chiefland, FL	Option / IDIQ	DLA, Philadelphia, PA	Jan 2020	Aug 2020	642	8.970	Y		
OPFOR Integrated Air Defense System (IADS) RSE(†)		2020	Scientific Research Corp (IADS RSE) / Huntsville, AL	C / IDIQ	ACC, Orlando, FL	Dec 2019	Nov 2020	2	6,862.500	Y		
OPFOR Integrated Air Defense System (IADS) RSE(†)		2021	Scientific Research Corp (IADS RSE) / Huntsville, AL	C / IDIQ	ACC, Orlando, FL	Dec 2020	Aug 2021	1	6,815.000	N		
OPFOR Integrated Air Defense System (IADS) RSE(†)		2022	Scientific Research Corp (IADS RSE) / Huntsville, AL	C / IDIQ	ACC, Orlando, FL	Dec 2021	Aug 2022	1	5,243.000	N		
Opposing Forces (OPFOR) Surrogate Wheeled Vehicle (OSWV) Visual Modifications(†)		2020	Rock Island Arsenal Depot / Rock Island, IL	MIPR	Rock Island, IL	Feb 2020	Jul 2021	43	206.186	Y		
Opposing Forces (OPFOR) Surrogate Wheeled Vehicle (OSWV) Visual Modifications(†)		2021	Rock Island Arsenal Depot / Rock Island, IL	MIPR	Rock Island, IL	Feb 2021	Jul 2022	88	206.000	Y		
Opposing Forces (OPFOR) Surrogate Wheeled Vehicle (OSWV) Visual Modifications(†)		2022	Rock Island Arsenal Depot / Rock Island, IL	MIPR	Rock Island, IL	Feb 2022	Jul 2023	20	250.000	Y		
Opposing Forces (OPFOR) Surrogate Wheeled Vehicle (OSWV) Technical Vehicles		2020	Rock Island Arsenal Depot / Rock Island, IL	MIPR	Rock Island, IL	Feb 2020	Jul 2021	34	50.000	Y		
Opposing Forces (OPFOR) Surrogate Wheeled Vehicle (OSWV) Technical Vehicles		2021	Rock Island Arsenal Depot / Rock Island, IL	MIPR	Rock Island, IL	Feb 2021	Jul 2022	69	50.000	Y		
IC3NS HW Components		2020	Scientific Research Corp (IC3NS) / Norfolk, VA	C / IDIQ	ACC, Orlando, FL	Mar 2020	Dec 2020	2	1,621.000	Y		
IC3NS HW Components		2021	Scientific Research Corp (IC3NS) / Norfolk, VA	C / IDIQ	ACC, Orlando, FL	Jan 2021	Aug 2021	2	1,519.000	Y		
IC3NS HW Components		2022	Scientific Research Corp (DIJ) / Huntsville, AL	C / IDIQ	ACC, Orlando, FL	Jan 2022	Aug 2022	2	890.000	Y		
Direct Injection Jammer (DIJ)(†)		2022	Scientific Research Corp (DIJ) / Huntsville, AL	C / IDIQ	ACC, Orlando, FL	Jan 2022	Jan 2023	1,070	7.017	Y		

Exhibit P-5a, Procurement History and Planning: PB 2022 Army		**Date:** May 2021
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
EW/Space/Cyber		2020	Scientific Research Corp (CER) / Huntsville, AL	C / IDIQ	ACC, Orlando, FL	Mar 2020	Dec 2020	3	3,818.000	N		
EW/Space/Cyber		2021	Scientific Research Corp (CER) / Huntsville, AL	C / IDDQ	ACC, Orlando, FL	Mar 2021	Dec 2021	3	3,051.333	N		
Opposing Forces (OPFOR) Surrogate Vehicles (OSV) Tank Thermal Sights (TTS)		2020	DRS Technologies (OSV) / Arlington, VA	Option / FFP	TACOM Contracting Center	Feb 2020	Jul 2020	22	680.636	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. Fluctuations in unit costs are due to the nature of the difference in upgrade changes from FY2019 to FY2020.

Exhibit P-21, Production Schedule: PB 2022 Army		**Date:** May 2021
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 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	
Combat Training Center Instrumentation System (CTC-IS) Modernization																															
Prior Years Deliveries: 3																															
	1	2020	ARMY	6	0	6											A -	-	-	-	-	-	-	-	-	-	-	6			0
	1	2022	ARMY	1,102	0	1,102																									1,102
OPFOR Integrated Air Defense System (IADS) RSE																															
	2	2020	ARMY	2	0	2			A -	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	1
	2	2021	ARMY	1	0	1															A -	-	-	-	-	-	-	-	1		0
	2	2022	ARMY	1	0	1																									1
Opposing Forces (OPFOR) Surrogate Wheeled Vehicle (OSWV) Visual Modifications																															
	3	2020	ARMY	43	0	43					A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10	10	10	13
	3	2021	ARMY	88	0	88																	A -	-	-	-	-	-	-	-	88
	3	2022	ARMY	20	0	20																									20
Direct Injection Jammer (DIJ)																															
	4	2022	ARMY	1,070	0	1,070																									1,070
							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 2022 Army		**Date:** May 2021
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 2022												Fiscal Year 2023												BALANCE
							Calendar Year 2022												Calendar Year 2023												
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2021	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: 3																															
	1	2020	ARMY	6	6	0																									0
	1	2022	ARMY	1,102	0	1,102								A -	-	-	-	-	-	-	-	-	-	-	-	1,102					0
OPFOR Integrated Air Defense System (IADS) RSE																															
	2	2020	ARMY	2	1	1	1																								0
	2	2021	ARMY	1	1	0																									0
	2	2022	ARMY	1	0	1			A -	-	-	-	-	-	-	-	1														0
Opposing Forces (OPFOR) Surrogate Wheeled Vehicle (OSWV) Visual Modifications																															
	3	2020	ARMY	43	30	13	10	3																							0
	3	2021	ARMY	88	0	88	-	-	-	-	-	-	-	-	-	10	10	10	10	10	10	10	10	8							0
	3	2022	ARMY	20	0	20					A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10	10		0
Direct Injection Jammer (DIJ)																															
	4	2022	ARMY	1,070	0	1,070				A -	-	-	-	-	-	-	-	-	-	-	-	1,070									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 2022 Army		**Date:** May 2021
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 2022	1-8-5 For 2022	MAX For 2022	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 (CTC IS) - TBS	1	500	1,200	0	9	13	22	0	7	13	20
2	Scientific Research Corp (IADS RSE) - Huntsville, AL	1	2	3	0	2	12	14	0	2	9	11
3	Rock Island Arsenal Depot - Rock Island, IL	10	75	185	0	4	18	22	0	4	18	22
4	Scientific Research Corp (DIJ) - Huntsville, AL	150	275	1,200	0	3	12	15	0	3	12	15

"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 2022 Army	Date: May 2021
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 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026	To Complete	Total
Procurement Quantity *(Units in Each)*	7,018	1,131	1,917	2,887	-	2,887	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	5,978.705	215.453	161.814	174.644	-	174.644	-	-	-	-	-	-
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	5,978.705	215.453	161.814	174.644	-	174.644	-	-	-	-	-	-
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**5,978.705**	**215.453**	**161.814**	**174.644**	**-**	**174.644**	**-**	**-**	**-**	**-**	**-**	**-**
(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)*	851.910	190.498	84.410	60.493	-	60.493	-	-	-	-	-	-

Description:

The Army continues to build on a major initiative with the Non-System Training Device (NSTD) program to introduce realistic and effective training devices into the individual and unit training setting. These devices bring into play many aspects of the combat environment (smoke, noise, confusion, stress, etc.), which provide our Soldiers with a valuable experience of battlefield conditions in a training environment. This effort includes the acquisition of training capabilities that support force-on-force training, force-on-target training, engagement simulation, and classroom instruction. Devices and simulations are being fielded to minimize resource consumption which will affect a direct cost reduction through conservation of energy and ammunition. These devices provide capabilities that allow Soldiers, leaders, and units to train tasks and missions that would be unsafe or too resource intensive to conduct with actual weapons, weapons systems, and ammunitions or if done in the actual environment. This budget line supports all Other Procurement, Army (OPA) funding for Non-System Training Devices (NSTD). It procures a variety of NSTD items such as the Medical Simulation Training Center (MSTC), Basic Electronics Maintenance Trainer (BEMT), Intelligence & Electronic Warfare Tactical Proficiency Trainer (IEWTPT), Common Battle Command Simulations Equipment (CBCSE), Joint Land Component Constructive Training Capability (JLCCTC), Digital Range Training System (DRTS), Future Army System of Integrated Targets (FASIT), Battle Command Training Capability - Equipment Support (BCTC-ES), Soldier Monitoring System, Joint Pacific Multinational Readiness Capability Information System (JPMRC-IS), Home Station Instrumentation Systems (HITS), Instrumentable Multiple Integrated Laser Engagement System (I-MILES), Common Training Instrumentation Architecture (CTIA), and Live, Virtual, Constructive Integrating Architecture (LVC-IA).

The Medical Simulation Training Center (MSTC) is a critical readiness enabler for combat units as it provides realistic medical training to both medical and non-medical Soldiers in the Active, Reserve, and National Guard. MSTCs provide hands-on instruction on the latest battlefield trauma and critical care techniques based on Army Medical Center of Excellence (MEDCoE) 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 Tactical Combat Casualty Care Exportable (TC3X) Soldier System provides an exportable capability to train Soldiers on medical Warrior skills at the individual, leader, and collective levels. The TC3X system will consist of Training Aides, Devices, Simulators, and/or Simulations (TADSS); utilized by Soldier medics to provide realistic, hands-on training in a "train the trainer" fashion to all Soldiers at home stations, initial training centers, and combat training centers.

The Basic Electronics Maintenance Trainer (BEMT) provides the essential modernized electronic system maintenance training capability for the Army, Army National Guard, and the Army Reserve to achieve Military Occupational Specialty-Qualification (MOS-Q) for 40 Military Occupational Specialties (MOS) at 24 Active, National Guard, and Army Reserve camps, posts, and stations. Soldiers utilizing the BEMT system receive highly realistic training using scenarios which require performing basic electronic tasks in a virtual environment including tests, diagnosis, and repair while saving institutions significant expenses over live training alternatives. The BEMT consists of an Instructor Operator Station (IOS), Student Training Station(s) (STS), associated test equipment, COTS computer, electronics console(s), supporting experiment cards, soldering station, and content server as applicable.

Exhibit P-40, Budget Line Item Justification: PB 2022 Army		Date: May 2021
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 Intelligence Electronic Warfare Tactical Proficiency Trainer (IEWTPT) is the key training device for the Military Intelligence Training Strategy (MITS) enabling military intelligence (MI) Soldier readiness in support of mission command, targeting, and intelligence soldier certification. It fills a MI specific warfighting function training gap at Home-Station by supporting sustainment of critical individual, crew, and collective multi-intelligence MOS tasks/skills. IEWTPT tools drive multi echelon training events allowing the collection, synchronization, integration, production and dissemination of intelligence training data and products to support the commander's Priority Intelligence Requirements (PIR) and inform operational decision making in a train as you fight environment. IEWTPT provides a realistic Intelligence target environment for Multi-Intelligence disciplines such as Signals Intelligence (SIGINT), Imagery Intelligence (IMINT), Human Intelligence (HUMINT), Geospatial Intelligence (GEOINT) and All Source Intelligence and must stimulate and emulate multiple Intelligence, Surveillance, Reconnaissance (ISR) platform systems such as: All Source Intelligence; Tactical Ground Station (TGS); and Aerial Intelligence assets such as Enhanced Medium Altitude Reconnaissance and Surveillance System (EMARSS) and Guardrail Common Sensor (GRCS). IEWTPT provides the "Digital Range" for Warfighting Commanders at all echelons to train intelligence tasks based on accurately portraying the operational environment and simulating and stimulating MI warfighting equipment where system operators and analysts are able to synchronize their Intelligence, Surveillance, and Reconnaissance (ISR) assets to exploit exercise intelligence data and provide the commander with required, executable, intelligence information. IEWTPT is a Non-System Training Device (NSTD) that provides proficiency training for analyst and system operators to exploit intelligence data during training, just as they would in "Real World" operations. The IEWTPT Technical Control Cell (TCC) is composed of two components: The Lower Enclave (LE) which supports exercise planning and development and drives the All Source and GEOINT training tasks and the Upper Enclave (UE) which supports all SIGINT related training and operates at the Top Secret / Sensitive Compartmented Information (TS/SCI) classification level. Increment 2 will be a software only environment and provide training capabilities that are synchronized with emerging Intelligence Corps system modernization priorities supporting multi-domain operations.

Joint Land Component Constructive Training Capability (JLCCTC) supports Army Title X training worldwide for Army Commanders and their staff at Mission Training Complexes (MTCs), Training and Doctrine Command (TRADOC) facilities, and other customer locations. JLCCTC trains Commanders and their staff in Decisive Actions to include offensive, defensive, stability, and civil support operations. JLCCTC is a software modeling and simulation capability that contributes to Army Training Mission Area by providing appropriate levels of model and simulation resolution and fidelity to support unit collective and combined arms training. The JLCCTC provides a composable federation configurable to any combination of models and simulations, as required by training exercise intent/design. The JLCCTC provides accurate representations of tactically and operationally relevant land warfare operations executed in a contemporary Joint operating environment/context in support of Army Commander and Staff Training.

Common Battle Command Simulation Equipment (CBCSE) is a fundamental element of the Joint Land Component Constructive Training Capability (JLCCTC) Program of Record, which supports institutional and operational Mission Command training for Active, Reserve, and National Guard units. CBCSE procures and fields commercial-off-the-shelf hardware, software and delta/new equipment training in support of JLCCTC for Army Hub and Spoke Mission Training Complexes and Combat Training Centers. CBCSE must be capable of running each JLCCTC fielded software version of Army training in support of Army Command and Staff training.

The Digital Range Training System (DRTS) provides modern digital technology ranges capable of training, evaluating and stressing today's Soldiers and their equipment. DRTS systems score various weapons and records data and video for utilization in an After Action Review (AAR). DRTS supports qualification gunnery tables for Armor (Abrams), Infantry (Bradley & Stryker mounted & dismounted) and Aviation platforms. The four standard training ranges identified utilize all available combat systems capabilities and digitally integrate them to manage all forces undergoing individual and collective live-fire training and qualification: Digital Multi-Purpose Range Complex (DMPRC) supports all gunnery tables and Combined Arms Live fire Exercise (CALFEX) for Abrams, Bradley, and limited Aviation; Digital Multi-Purpose Training Range (DMPTR) supports crew and section qualification for Armor and Infantry; Battle Area Complex (BAX) supports Stryker gunnery tables plus infantry-centric Platoon / Company CALFEX; Digital Air Ground Integration Range (DAGIR) supports all gunnery tables and CALFEX for Abrams, Bradley, and Aviation platforms (including diving fire).

Future Army System of Integrated Targets (FASIT) provides Live Fire training systems and software capable of supporting all Army automated ranges and it's Installations around the world. The FASIT training systems include: A single, universal target control software for all automated ranges (ground and aviation) identified in TC 25-8, providing users a controller with a common look and feel; downrange stationary and moving infantry and armor Presentation Devices (PDs) that interact with the control software to present targets and provide scoring feedback; battlefield/weapons effects devices that simulate combat situations, visuals, and sounds; and targets that provide visual, infrared and thermal representations of friendly/threat engagements. The FASIT systems enable trainers to develop scenarios to simulate wartime mission tasks in a stressful battlefield environment.

Battle Command Training Capability-Equipment Support (BCTC-ES) provides the furniture, fixtures, equipment (FFE) enabling the installation Mission Training Complex (MTC) to provide Home Station Training for the War Fighter. FFE includes network infrastructure hardware and software, Reconfigurable Tactical Operation Center (RTOC), tech control suites, classrooms, work cell capabilities and technical tools required for 33 MTC locations and for MTC Military Construction, Army (MCA) projects. FFE enables the linkage of constructive simulations to Mission Command (MC) systems, individual and collective MC

Exhibit P-40, Budget Line Item Justification: PB 2022 Army		Date: May 2021
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		

training and War fighter Exercises. BCTC-ES provides equipment that integrates Army MC Systems into Tactical Operation Center (TOC) sets, providing visualization of the Common Operating Picture (COP) and the linkage within an MTC that supports secure and distributed MC/Simulation training. Provides Architectural and Engineering (A&E) support to the MTC Design Board for new MCA development.

The Soldier Monitoring System (SMS) is the materiel solution that provides real-time automated Soldier tracking, emergency alert, no-motion alerts, man down alerts, and boundary alerts. Since initial fielding, the SMS has supported over 900 training events, and safeguarded more than 15,000 Soldiers. During those events, several emergencies occurred in which the SMS accurately located the distressed Soldier. The SMS has mitigating training risk with its 96% tracking accuracy and coverage. The system consists of four subsystems: Communications Subsystem (CS); Soldier Worn Device (SWD); Monitoring System (MS); and Mobile Monitoring System (MMS). CPD Signed 26 May 2019.

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, Training Analysis and Feedback (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 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 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.

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 Information 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 2022 Army	Date: May 2021
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 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026
Army	Quantity	1,084	1,808	2,775	-	2,775	-	-	-	-
	Total Obligation Authority	168.593	139.143	151.502	-	151.502	-	-	-	-
ANG	Quantity	39	103	93	-	93	-	-	-	-
	Total Obligation Authority	34.881	15.302	11.499	-	11.499	-	-	-	-
AR	Quantity	8	6	19	-	19	-	-	-	-
	Total Obligation Authority	11.979	7.369	11.643	-	11.643	-	-	-	-
Total: Secondary Distribution	**Quantity**	**1,131**	**1,917**	**2,887**	**-**	**2,887**	**-**	**-**	**-**	**-**
	Total Obligation Authority	**215.453**	**161.814**	**174.644**	**-**	**174.644**	**-**	**-**	**-**	**-**

Exhibit P-40, Budget Line Item Justification: PB 2022 Army	Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 70: Training Equipment	**P-1 Line Item Number / Title:** 2062NA0100 / Training Devices, Nonsystem

ID Code (A=Service Ready, B=Not Service Ready):	Program Elements for Code B Items: 0654715A	Other Related Program Elements: N/A

Line Item MDAP/MAIS Code: N/A

Exhibits Schedule					Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/ MAIS Code	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)
P-5	NA0101 / NSTD Soldier Training Support Program (STSP)	P-5a	A		868 / 2,729.453	264 / 28.539	100 / 5.134	463 / 9.901	- / -	463 / 9.901
P-5	NA0102 / NSTD INTELLIGENCE	P-5a	A		4 / 84.274	3 / 6.081	- / 1.607	- / 3.680	- / -	- / 3.680
P-5	NA0103 / NSTD COMMAND & CONTROL	P-5a	A		30 / 510.959	24 / 35.313	23 / 35.038	16 / 37.147	- / -	16 / 37.147
P-5	NA0105 / NSTD RANGES AND TARGETS	P-5a, P-21	A		70 / 1,626.285	7 / 88.950	211 / 59.514	247 / 60.422	- / -	247 / 60.422
P-5	NA0106 / NSTD Battle Command Training Center Support Prg	P-5a			38 / 396.959	14 / 18.985	13 / 14.405	11 / 14.116	- / -	11 / 14.116
P-5	NA0110 / NSTD - Live Training	P-5a			- / -	- / -	4 / 9.845	4 / 8.059	- / -	4 / 8.059
P-5	NA0116 / NSTD- MILES	P-5a, P-21			5,996 / 532.358	819 / 28.488	1,559 / 26.105	2,139 / 29.905	- / -	2,139 / 29.905
P-5	NA0121 / NSTD - LVC ARCHITECTURE	P-5a			12 / 98.417	0 / 9.097	7 / 10.166	7 / 11.414	- / -	7 / 11.414
P-40	**Total Gross/Weapon System Cost**				**7,018 / 5,978.705**	**1,131 / 215.453**	**1,917 / 161.814**	**2,887 / 174.644**	**- / -**	**2,887 / 174.644**

*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 2022 BASE procurement dollars in the amount of $174.644 million supports the following efforts:

Soldier Training Support program of $9.901 million consists of:

FY 2022 Base procurement dollars in the amount of $7.863 million will provide the required second MSTC at Ft. Bragg to mitigate the very high 68W medic throughput, the Medical Training Command and Control (MT-C2) Post Deployment Software Support (PDSS), and the MSTC High Fidelity Patient System technical refresh. The MT-C2 enables MSTC training environment manipulation, medical scenario integration, mannequin control, audio video (AV) surveillance and recording as well as hostile fire simulations and friendly force engagement control in order to maximize the positive impact and training experience of each fluid training event. The MT-C2 PDSS provides the required software and hardware support to the MSTC personnel to ensure equipment operability and update on a 24/7 help desk basis.

FY 2022 Base procurement dollars in the amount of $2.038 million supports the Basic Electronics Maintenance Trainer (BEMT) II to procure, upgrade and install 442 BEMT II systems to provide increased capabilities in systems level training, distance learning, and soldering techniques.

Intelligence program of $3.680 million consists of:

FY 2022 Base procurement dollars in the amount of $3.680 million supports the Intelligence Electronic Warfare Tactical Proficiency Trainer (IEWTPT) Technical Control Cell (TCC) system concurrency upgrades and synchronization with Intelligence Program of Record platform capabilities. Procurement resourcing provides the engineering support to update the simulation and training baseline to drive home station intelligence training and unit certification. Critical efforts for FY 2022 support intelligence modernization training requirements for emerging electronic warfare (EW) and signals intelligence (SIGINT) linked to the Requirements and Configuration Control Board (RC2B) priorities. Additionally, the program will finalize activities to complete a cloud ready architecture for Increment 2 transition in early FY 2022. Increment 2 will follow the software acquisition pathway in support of intelligence corps modernization priorities for multi-domain and multi-intelligence training for all components.

Command & Control program of $37.147 million consists of:

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Line Item MDAP/MAIS Code: N/A		

FY 2022 Base procurement dollars in the amount of $37.147 million will be used to procure Common Battle Command Simulation Equipment (CBCSE) commercial off-the-shelf (COTS) hardware and software, to conduct Joint Land Component Constructive Training Capability (JLCCTC) post deployment software refinement and Pre-Planned Product Improvement (P3I) activities. This includes fixing Problem Tracking Reports (PTRs), First-Use exercise support and Training Documentation updates, Cyber Security/Risk Management Framework (RMF) and Mission Command Concurrency, Common Terrain integration, and Live, Virtual, Constructive - Integrating Architecture (LVC-IA) Interoperability, Regression Test of external interfaces to Joint and Coalition simulations, Fielding activities, Information Assurance Vulnerability Assessment (IAVA), Configuration Management, provide a Low Overhead Capability (DXTRS), CTC-IS and IEWTPT interoperability, conduct fielding and training activities of the Single Federation solution, and Helpdesk activities. Quantities represent sites and vary to configuration of site size, therefore, causing unit costs to fluctuate. The base quantity reflects the number of planned fielding events.

Ranges and Targets program of $60.422 million consists of:

FY 2022 Base procurement dollars in the amount of $33.969 million supports the Digital Range Training System (DRTS) program with the following Continuous Technology Refreshment (CTR): Ft. Bliss DAGIR Range 83 Tier 1, Korea DMPRC Tier 2, Korea DMPTR Tier 2, Ft. Bliss DMPTR Range 66 Field Cameras Only, GTA 201/301 Tier 1, and PTA BAX Field Cameras and Dismount kits. Funding also supports Post Deployment Software Support (PDSS), Aviation Integration (AI), travel, and contractor engineering and cybersecurity support.

FY 2022 Base procurement dollars in the amount of $14.135 million for Future Army System of Integrated Targets (FASIT) provides Continuous Technology Refreshment of existing ranges. This include conversion of approximately 60 legacy ranges to the Government owned target control system software Targetry Range Automated Control & Recording (TRACR); replacement of obsolete target lifters and range equipment on sixteen ranges that have reached the end of their economic useful life (EUL) of 20 years. This is an increase from prior years as it corresponds to an increase in the number of Army ranges fielded twenty years ago. These range Technology Refreshments are critical to maintaining Soldiers weapons' and crew qualifications in preparation for deployment. Readiness of Soldiers is critical to saving lives in wartime situations. The 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 2022 Base procurement dollars in the amount of $5.054 million for Future Army System of Integrated Targets (FASIT) OPA tails procures the target lifters and information technology (IT) equipment for the new Ft. Devens Multipurpose Machine Gun Range and the Ft. McCoy Scout Recce Gunnery Complex. These ranges are critical to maintaining Soldiers weapons' and crew qualifications in preparation for deployment. Readiness of Soldiers is critical to saving lives in wartime situations. The 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 2022 Base procurement dollars in the amount of $3.668 million for Future Army System of Integrated Targets (FASIT) procures 185 new Battlefield Effect Devices (BED) for the three Combat Training Centers. This procurement effort follows the FY 2021 RDT&E funding which was used to develop the prototype capabilities. FY 2021 is the first year of a three year production period. These BEDs include machine gun shoot-back effects, small arms hostile file effects, main gun signature effects and smoke effects devices. The ability for the Combat Training Centers to portray realistic opposing forces training feedback to the units being evaluated is critical to prepare them for deployment and combat operations.

FY 2022 Base procurement dollars in the amount of $2.453 million for Future Army System of Integrated Targets (FASIT) provides a single government-owned common target control system for all Army targets and ranges to include Range Configuration Management efforts to establish and maintain hardware and software baseline definition and control needed to support operations at the 330+ ranges; Post Deployment Software Support (PDSS) of the government-owned range and target control software; and evolution of the targetry standards and specifications.

FY 2022 Base procurement dollars in the amount of $1.143 million for the Future Army System of Integrated Targets (FASIT) program provides contractor management support and fielding costs.

Battle Command Training Support Program of $14.116 million consists of:

FY 2022 Base procurement dollars in the amount of $14.116 million procures network infrastructure hardware and software to maintain Risk Management Framework requirements for 18 Mission Training Complex (MTC) locations, technology refresh for Mission Command Tactical Server Infrastructure at eight (8) MTC, the refresh of furniture, fixtures and equipment (FFE) for 10 MTC locations and equipping the US Army Central Command MTC MCA project w/FFE, the Electronic Security System access control design, procurement and installation for the Joint Multinational Simulation Center MTC MCA USAG

Exhibit P-40, Budget Line Item Justification: PB 2022 Army		Date: May 2021
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		

Bavaria (Grafenwoehr) and technology refresh of VTC capability at eight (8) MTC locations. The cost varies by site and fiscal year, depending on the size of the MTC, time between technology refresh and Army component AC, USARNG and USAR. The onset of the RMF process, increased network and boundary enclave requirements has driven up the costs to maintain accreditation and system security.

LIVE Training Program of $8.059 million consists of:

FY 2022 Base procurement dollars in the amount of $4.824 million supports the procurement of four Soldier Monitoring System's for real-time automated Soldier tracking. The Soldier Monitoring System consists of four subsystems: Communications, Soldier Worn Device, Monitoring System and Mobile Monitoring System.

FY 2022 Base procurement dollars in the amount of $3.235 million will continue to provide the Home Station Instrumentation Systems (HITS) program's Post-Deployment Software Support (PDSS) efforts and contractor support. PDSS will maintain the system relevancy and ensure concurrence of combined arms training capabilities with integration into Live Virtual Constructive Integrated Architecture (LVC-IA) for simulation interoperability.

MILES Program of $29.905 million consists of:

FY 2022 Base procurement dollars in the amount of $29.905 million procures for the Instrumentable-Multiple Integrated Laser Engagement System (I-MILES) program 2,139 Wireless Independent Target System kits, Continuous Technology Refreshment, and engineering change proposals, contractor management support and fielding costs. The technology refresh incorporates the Live Training Engagement Composition architecture and Engineering Change Proposals that refine and enhance the Vehicle Tactical Engagement Simulation System (VTESS) systems during its initial fielding. I-MILES systems support Brigade Combat Teams down to the squad level and can be integrated into the Live-Virtual-Constructive Integrated Architecture as a component of the full training environment. I-MILES enhances the Warfighter's ability to effectively train individual and collective combat skills in a safe training environment. The data from I-MILES systems provide information for After Action Reviews to assess Tactics Techniques Procedures. The completion of the I-MILES basis of issue plan and pure 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 40th Chief of the Staff of the Army's priority of "Readiness".

LVC Architecture Program of $11.414 million consists of:

FY 2022 Base procurement dollars in the amount of $3.061 million supports the required CTIA program infrastructure, core lab facility, post deployment software support, and technology refresh and modifications for the Live Training Transformation Family of Training Systems. CTIA enables interoperability with legacy and future modernization efforts including emerging Army and joint architectures.

FY 2022 Base procurement dollars in the amount of $8.353 million procures the Live, Virtual, Constructive - Integrating Architecture (LVC-IA) associated hardware and software, Post Deployment Software Support (PDSS) activities, version upgrades, technology refresh/ spares, site support and New Equipment Training (NET) at Army Mission Training Complexes (MTC) in preparation for Multi-Domain Operations 2028 and beyond. LVC-IA program PDSS provides a capability to support sustainment of the system software and its associated subsystems and components. LVC-IA program performs version upgrades for replacement or modification of components for reasons other than obsolescence including Pre-Planned Product Improvement (P3I), modification, conversion, reconfiguration, retrofit, and technology insertion to increase the performance capability of the system; program will continue to upgrade from Version 3 to Version 4 at seven (7) 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.

In FY 2021, Home Station Instrumentation Training System (HITS), Joint Pacific Multinational Readiness Capability-Instrumentation System (JPMRC-IS), and Soldier Monitoring System (SMS) were moved from SSN NA0101 to NA0110 - NSTD LIVE Training.

In FY 2021, Combat Training Center Live Fire Modernization (CTC Live Fire Mod) was moved from SSN MA6601 to NA0105 - Ranges and Targets.

Exhibit P-40, Budget Line Item Justification: PB 2022 Army		Date: May 2021
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		

On 21 April 2019, the Future Army System of Integrated Targets (FASIT) Capability Production Document was approved. The FASIT program is not a new start program, but is the continuation of requirements and formal update to the New Generation Army Targetry System (NGATS) Operational Requirements Document (ORD) that was approved on 11 Jun 1996. FASIT will subsume the following programs: Combat Training Center Live Fire Modernization (CTC Live Fire Mod), Target Modernization, and Army Targetry Systems (ATS) into one ACAT II program of record.

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 2022 Army		Date: May 2021
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 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Procurement Quantity *(Units in Each)*	868	264	100	463	-	463
Gross/Weapon System Cost *($ in Millions)*	2,729.453	28.539	5.134	9.901	-	9.901
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	2,729.453	28.539	5.134	9.901	-	9.901
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**2,729.453**	**28.539**	**5.134**	**9.901**	**-**	**9.901**
(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)*	3,144.531	108.102	51.340	21.384	-	21.384

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

Cost Elements	Prior Years			FY 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 Total		
	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	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	56.193	1,051	59.059	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CFFT (Various Configurations)	686.429	28	19.220	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CFFT Concurrency/ PDSS	-	-	6.052	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BEMT II Upgrades(†)	4.271	262	1.119	3.000	243	0.729	7.846	91	0.714	4.505	442	1.991	-	-	-	4.505	442	1.991
HITS version 4	3,772.500	2	7.545	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HITS Engineering Change Proposal	-	-	2.708	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HITS Concurrency	-	-	3.646	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HITS PDSS/CTR	-	-	25.754	-	-	2.661	-	-	-	-	-	-	-	-	-	-	-	-
JPMRC-IS FOC/ PDSS/CTR	-	-	44.676	-	-	17.523	-	-	-	-	-	-	-	-	-	-	-	-
MSTC MT-C2(†)	711.846	26	18.508	342.286	7	2.396	299.250	4	1.197	250.800	5	1.254	-	-	-	250.800	5	1.254
MSTC TC3X(†)	58.173	208	12.100	250.000	14	3.500	-	-	-	-	-	-	-	-	-	-	-	-
MSTC MATT Concurrency	32.929	42	1.383	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MSTC Validation Lanes	33.000	2	0.066	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Exhibit P-5, Cost Analysis: PB 2022 Army		Date: May 2021
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 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 Total		
	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)
MSTC Part Task Trainers	32.905	21	0.691	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MSTC Continous Tech Refreshment(†)	-	-	6.740	-	-	-	363.250	4	1.453	323.933	15	4.859	-	-	-	323.933	15	4.859
MSTC High Fidelity Tetherless Mannequin	-	-	4.981	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Racks and Shelving	-	-	2.139	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Training Devices	-	-	2,323.779	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MSTC New Site (Ft. Hood)(†)	-	-	-	-	-	-	1,750.000	1	1.750	-	-	-	-	-	-	-	-	-
MSTC New Site (Bragg)(†)	-	-	-	-	-	-	-	-	-	1,750.000	1	1.750	-	-	-	1,750.000	1	1.750
Subtotal: Recurring Cost	-	-	*2,540.166*	-	-	*26.809*	-	-	*5.114*	-	-	*9.854*	-	-	-	-	-	*9.854*
Subtotal: Flyaway Cost	**-**	**-**	***2,540.166***	**-**	**-**	***26.809***	**-**	**-**	***5.114***	**-**	**-**	***9.854***	**-**	**-**	**-**	**-**	**-**	***9.854***
Support - Program Management Cost																		
Contractor Management	-	-	189.287	-	-	1.730	-	-	0.020	-	-	0.047	-	-	-	-	-	0.047
Subtotal: Support - Program Management Cost	**-**	**-**	***189.287***	**-**	**-**	***1.730***	**-**	**-**	***0.020***	**-**	**-**	***0.047***	**-**	**-**	**-**	**-**	**-**	***0.047***
Gross/Weapon System Cost	**3,144.531**	**868**	**2,729.453**	**108.102**	**264**	**28.539**	**51.340**	**100**	**5.134**	**21.384**	**463**	**9.901**	**-**	**-**	**-**	**21.384**	**463**	**9.901**

Remarks:

BEMT unit costs differ due to fielding locations (active Army vs Army National Guard), system configuration at each location. The original schedule for fielding has been updated to include the largest fielding's at the beginning and middle of the fielding schedule. BEMT procures COTS items.

In FY 2021, Home Station Instrumentation Training System (HITS), Joint Pacific Multinational Readiness Capability-Instrumentation System (JPMRC-IS), and Soldier Monitoring System (SMS) was moved from SSN NA0101 to NA0110: NSTD LIVE Training.

Secondary Distribution		FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Army	Quantity	233	2	359	-	359
	Total Obligation Authority	26.229	0.969	7.176	-	7.176
ANG	Quantity	29	96	89	-	89
	Total Obligation Authority	1.713	3.196	2.282	-	2.282
AR	Quantity	2	2	15	-	15
	Total Obligation Authority	0.597	0.969	0.443	-	0.443

Exhibit P-5, Cost Analysis: PB 2022 Army		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 70	**P-1 Line Item Number / Title:** 2062NA0100 / Training Devices, Nonsystem	**Item Number / Title [DODIC]:** NA0101 / NSTD Soldier Training Support Program (STSP)
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	

Secondary Distribution		FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Total: Secondary Distribution	Quantity	264	100	463	-	463
	Total Obligation Authority	28.539	5.134	9.901	-	9.901

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2022 Army		Date: May 2021
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
BEMT II Upgrades		2020	Nida Corporation / Melbourne, FL	Option / FFP	ACC, Orlando, FL	Feb 2020	Nov 2020	243	3.000	Y		
BEMT II Upgrades		2021	Nida Corporation / Melbourne, FL	Option / FFP	ACC, Orlando	Nov 2020	Aug 2021	91	7.846	Y		
BEMT II Upgrades		2022	Nida Corporation / Melbourne, FL	Option / FFP	ACC, Orlando, FL	Nov 2021	Aug 2022	442	4.505	Y		
MSTC MT-C2		2020	RIPTIDE (MSTC) MT-C2 / ORLANDO, FL	Option / FFP	ACC Orlando	May 2020	Jul 2020	7	342.286	Y		
MSTC MT-C2		2021	RIPTIDE (MSTC) MT-C2 / ORLANDO, FL	C / FFP	GSA	Nov 2020	Jan 2021	4	299.250	Y		
MSTC MT-C2		2022	RIPTIDE (MSTC) MT-C2 / ORLANDO, FL	Option / FFP	GSA	Nov 2021	Jan 2022	5	250.800	Y		
MSTC TC3X		2019	KFORCE Gov't Sol. (MSTC) MATT / FAIRFAX, VA	C / IDIQ	ACC, Orlando, FL	Mar 2019	May 2019	129	34.884	Y		
MSTC TC3X		2020	KFORCE (MSTC) TC3X / FAIRFAX, VA	C / IDIQ	ACC, Orlando, FL	Mar 2020	May 2020	14	250.000	Y		
MSTC Continous Tech Refreshment		2021	TBD MSTC / TBD	C / FFP	HRCO	Jun 2021	Aug 2021	4	363.250	Y		
MSTC Continous Tech Refreshment		2022	TBD MSTC / TBD	C / FFP	HRCO	Jan 2022	May 2022	15	323.933	Y		
MSTC New Site (Ft. Hood)		2021	TBD MSTC / TBD	Option / FFP	HRCO	Aug 2021	Sep 2021	1	1,750.000	Y		
MSTC New Site (Bragg)		2022	TBD MSTC / TBD	Option / FFP	GSA	Nov 2021	Jan 2022	1	1,750.000	Y		

Remarks:
Call for Fire Trainer and Engagement Skills Trainer Programs move into sustainment in FY20.

PEO STRI = Program Executive Office for Simulation, Training and Instrumentation

Army Contracting Command, (ACC) Orlando, FL

Exhibit P-5, Cost Analysis: PB 2022 Army		Date: May 2021
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 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Procurement Quantity *(Units in Each)*	4	3	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	84.274	6.081	1.607	3.680	-	3.680
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	84.274	6.081	1.607	3.680	-	3.680
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**84.274**	**6.081**	**1.607**	**3.680**	**-**	**3.680**
(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)*	21,068.500	2,027.000	-	-	-	-

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

Cost Elements	Prior Years			FY 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 Total		
	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	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(†)	5,587.000	8	44.696	384.000	3	1.152	-	-	-	-	-	-	-	-	-	-	-	-
IEWTPT HCC	-	-	2.761	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
IEWTPT TCC - Retrofit	-	-	1.495	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PDSS	-	-	1.943	-	-	1.775	-	-	-	-	-	-	-	-	-	-	-	-
Concurrency	-	-	2.000	-	-	1.300	-	-	1.229	-	-	1.979	-	-	-	-	-	1.979
P3I	-	-	1.157	-	-	-	-	-	-	-	-	1.444	-	-	-	-	-	1.444
Subtotal: Recurring Cost	-	-	*54.052*	-	-	*4.227*	-	-	*1.229*	-	-	*3.423*	-	-	-	-	-	*3.423*
Subtotal: Flyaway Cost	**-**	**-**	***54.052***	**-**	**-**	***4.227***	**-**	**-**	***1.229***	**-**	**-**	***3.423***	**-**	**-**	**-**	**-**	**-**	***3.423***
Hardware Cost																		
Recurring Cost																		
Engineering for Product Improvement	-	-	18.509	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Recurring Cost	-	-	*18.509*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Hardware Cost	**-**	**-**	***18.509***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Support - Contractor Logistics Support (CLS) Cost																		
Oversight	-	-	6.241	-	-	1.854	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Support - Contractor Logistics Support (CLS) Cost	**-**	**-**	***6.241***	**-**	**-**	***1.854***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Support - Program Management Cost																		

Exhibit P-5, Cost Analysis: PB 2022 Army		Date: May 2021
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 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 Total		
	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)
Contractor Management	-	-	5.472	-	-	-	-	-	0.378	-	-	0.257	-	-	-	-	-	0.257
Subtotal: Support - Program Management Cost	**-**	**-**	***5.472***	**-**	**-**	**-**	**-**	**-**	***0.378***	**-**	**-**	***0.257***	**-**	**-**	**-**	**-**	**-**	***0.257***
Gross/Weapon System Cost	**21,068.500**	**4**	**84.274**	**2,027.000**	**3**	**6.081**	**-**	**-**	**1.607**	**-**	**-**	**3.680**	**-**	**-**	**-**	**-**	**-**	**3.680**

Remarks:
The current IEWTPT contract awarded in 2nd Quarter FY 2017 will finalize system production and delivery in FY 2020 and transition to Increment 2 not later than 15 February 2022. FY 2022 Base procurement dollars in the amount of $3.680 million supports the Intelligence Electronic Warfare Tactical Proficiency Trainer (IEWTPT) concurrency updates and system synchronization with Intelligence programs of record (POR) such as the emerging Terrestrial Layer System (TLS), All Source Intelligence Capability Drops, and Aerial Intelligence, Surveillance, Reconnaissance Electronic Warfare (EW) simulation interface activities. Increment 2 will follow the software acquisition pathway to meet approved requirements aligned with intelligence corps modernization priorities for multi-domain and multi-intelligence training at home station.

NOTES:
(1) P-5 - Support Costs - The $.257 in FY 2022 is for contractor engineering support.
(2) Contractor - General Dynamics Mission Sys Inc.
(3) IEWTPT Procurement in FY 2022 will maintain concurrency requirements to sync IEWTPT with Intelligence/EW (POR).

Secondary Distribution		FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Army	Quantity	-	-	-	-	-
	Total Obligation Authority	-	1.607	3.680	-	3.680
ANG	Quantity	2	-	-	-	-
	Total Obligation Authority	4.054	-	-	-	-
AR	Quantity	1	-	-	-	-
	Total Obligation Authority	2.027	-	-	-	-
Total: Secondary Distribution	**Quantity**	**3**	**-**	**-**	**-**	**-**
	Total Obligation Authority	**6.081**	**1.607**	**3.680**	**-**	**3.680**

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2022 Army		Date: May 2021
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		2020	General Dyn. Mission Sys Inc / Orlando, FL	Option / FFP	ACC, Orlando, FL	Feb 2020	May 2020	3	384.000	Y		

Remarks:
The current IEWTPT contract awarded in 2nd Quarter FY 2017 will finalize system production and delivery in FY 2020 and transition to Increment 2 not later than 15 February 2022. FY 2022 Base procurement dollars in the amount of $3.680 million supports the Intelligence Electronic Warfare Tactical Proficiency Trainer (IEWTPT) concurrency updates and system synchronization with Intelligence programs of record (POR) such as the emerging Terrestrial Layer System (TLS), All Source Intelligence Capability Drops, and Aerial Intelligence, Surveillance, Reconnaissance Electronic Warfare (EW) simulation interface activities. Increment 2 will follow the software acquisition pathway to meet approved requirements aligned with intelligence corps modernization priorities for multi-domain and multi-intelligence training at home station.

NOTES:
(1) P-5 - Support Costs - The $.257 in FY 2022 is for contractor engineering support.
(2) Contractor - General Dynamics Mission Sys Inc.
(3) IEWTPT Procurement in FY 2022 will maintain concurrency requirements to sync IEWTPT with Intelligence/EW (POR).

Exhibit P-5, Cost Analysis: PB 2022 Army		Date: May 2021
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 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Procurement Quantity *(Units in Each)*	30	24	23	16	-	16
Gross/Weapon System Cost *($ in Millions)*	510.959	35.313	35.038	37.147	-	37.147
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	510.959	35.313	35.038	37.147	-	37.147
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**510.959**	**35.313**	**35.038**	**37.147**	**-**	**37.147**
(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)*	17,031.967	1,471.375	1,523.391	2,321.688	-	2,321.688

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

Cost Elements	Prior Years			FY 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 Total		
	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	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(†)	10,638.103	29	308.505	757.143	7	5.300	519.000	7	3.633	-	-	-	-	-	-	-	-	-
Flyaway Recurring: Spoke(†)	1,763.208	24	42.317	282.353	17	4.800	209.625	16	3.354	-	-	-	-	-	-	-	-	-
Subtotal: Recurring Cost	-	-	*350.822*	-	-	*10.100*	-	-	*6.987*	-	-	-	-	-	-	-	-	-
Subtotal: Flyaway Cost	**-**	**-**	***350.822***	**-**	**-**	***10.100***	**-**	**-**	***6.987***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Hardware Cost																		
Recurring Cost																		
Common Hardware Platform Refresh	-	-	29.842	-	-	5.053	-	-	7.871	-	-	9.494	-	-	-	-	-	9.494
Subtotal: Recurring Cost	-	-	*29.842*	-	-	*5.053*	-	-	*7.871*	-	-	*9.494*	-	-	-	-	-	*9.494*
Subtotal: Hardware Cost	**-**	**-**	***29.842***	**-**	**-**	***5.053***	**-**	**-**	***7.871***	**-**	**-**	***9.494***	**-**	**-**	**-**	**-**	**-**	***9.494***
Software Cost																		
Recurring Cost																		
Post Deployment Software Refinement	-	-	69.696	-	-	10.000	-	-	9.783	-	-	9.445	-	-	-	-	-	9.445
Pre-Planned Product Improvement (P3I)	-	-	29.906	-	-	6.100	-	-	5.006	-	-	5.345	-	-	-	-	-	5.345
RMF Concurrency and Joint Coalition Interoperability	-	-	-	-	-	-	-	-	-	-	-	4.720	-	-	-	-	-	4.720

Exhibit P-5, Cost Analysis: PB 2022 Army		Date: May 2021
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 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 Total		
	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	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	-	-	*99.602*	-	-	*16.100*	-	-	*14.789*	-	-	*19.510*	-	-	-	-	-	*19.510*
Non Recurring Cost																		
Constructive Strategy Implementation	-	-	9.165	-	-	3.700	-	-	4.700	-	-	-	-	-	-	-	-	-
Subtotal: Non Recurring Cost	-	-	*9.165*	-	-	*3.700*	-	-	*4.700*	-	-	-	-	-	-	-	-	-
Subtotal: Software Cost	**-**	**-**	***108.767***	**-**	**-**	***19.800***	**-**	**-**	***19.489***	**-**	**-**	***19.510***	**-**	**-**	**-**	**-**	**-**	***19.510***
Package Fielding Cost																		
Recurring Cost																		
Recurring Package Fielding for Division through Theatre level Hardware Suites(†)	-	-	-	-	-	-	-	-	-	835.000	4	3.340	-	-	-	835.000	4	3.340
Recurring Package Fielding for Brigade and below level Hardware Suites(†)	-	-	-	-	-	-	-	-	-	340.250	12	4.083	-	-	-	340.250	12	4.083
Subtotal: Recurring Cost	-	-	-	-	-	-	-	-	-	-	-	*7.423*	-	-	-	-	-	*7.423*
Subtotal: Package Fielding Cost	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***7.423***	**-**	**-**	**-**	**-**	**-**	***7.423***
Support - Program Management Cost																		
Government Management	-	-	21.528	-	-	0.360	-	-	0.691	-	-	0.720	-	-	-	-	-	0.720
Subtotal: Support - Program Management Cost	**-**	**-**	***21.528***	**-**	**-**	***0.360***	**-**	**-**	***0.691***	**-**	**-**	***0.720***	**-**	**-**	**-**	**-**	**-**	***0.720***
Gross/Weapon System Cost	**17,031.967**	**30**	**510.959**	**1,471.375**	**24**	**35.313**	**1,523.391**	**23**	**35.038**	**2,321.688**	**16**	**37.147**	**-**	**-**	**-**	**2,321.688**	**16**	**37.147**

Remarks:

Unit Cost increased due to additional cyber security/Risk Management Framework requirements and additional costs for initial Software Commercial Off-The-Shelf licenses.

Fielding quantity changed due to emerging warfighter requirements, fielding JLCCTC to 16 sites per year (a 3 year cycle to complete a total of 48 sites).

Secondary Distribution		FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Army	Quantity	19	17	12	-	12
	Total Obligation Authority	23.124	22.174	23.224	-	23.224

Exhibit P-5, Cost Analysis: PB 2022 Army		Date: May 2021
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:**	

Secondary Distribution		FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
ANG	Quantity	3	3	2	-	2
	Total Obligation Authority	6.902	7.185	7.777	-	7.777
AR	Quantity	2	3	2	-	2
	Total Obligation Authority	5.287	5.679	6.146	-	6.146
Total: Secondary Distribution	**Quantity**	**24**	**23**	**16**	**-**	**16**
	Total Obligation Authority	**35.313**	**35.038**	**37.147**	**-**	**37.147**

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2022 Army		**Date:** May 2021
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		2020	Phoenix Logistics, Inc / Mesa, AZ	Option / FFP	ACC, Orlando, FL	Nov 2019	Dec 2019	7	757.143	Y		
Flyaway Recurring: Division/Hub		2021	Phoenix Logistics, Inc / Mesa, AZ	Option / FFP	ACC, Orlando, FL	Oct 2020	Nov 2020	7	519.000	Y		
Flyaway Recurring: Spoke		2020	Phoenix Logistics, Inc / Mesa, AZ	Option / FFP	ACC, Orlando, FL	Nov 2019	Dec 2019	17	282.353	Y		
Flyaway Recurring: Spoke		2021	Phoenix Logistics, Inc / Mesa, AZ	Option / FFP	ACC, Orlando, FL	Oct 2020	Nov 2020	16	209.625	Y		
Recurring Package Fielding for Division through Theatre level Hardware Suites		2022	Phoenix Logistics, Inc / Mesa, AZ	Option / FFP	ACC, Orlando, FL	Oct 2021	Nov 2021	4	835.000	N		
Recurring Package Fielding for Brigade and below level Hardware Suites		2022	Phoenix Logistics, Inc / Mesa, AZ	Option / FFP	ACC, Orlando, FL	Oct 2021	Nov 2021	12	340.250	N		

Remarks:
Items are all commercial-off-the-shelf (COTS). Per the Resource Formulation Guidance, no P-21 is required for COTS items.

The JLCCTC federation supports Brigade through Theatre level.

The program is executing a 5-year Common Hardware Platform (CHP) refresh cycle.

Exhibit P-5, Cost Analysis: PB 2022 Army		Date: May 2021
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 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Procurement Quantity *(Units in Each)*	70	7	211	247	-	247
Gross/Weapon System Cost *($ in Millions)*	1,626.285	88.950	59.514	60.422	-	60.422
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	1,626.285	88.950	59.514	60.422	-	60.422
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**1,626.285**	**88.950**	**59.514**	**60.422**	**-**	**60.422**
(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)*	23,232.643	12,707.143	282.057	244.623	-	244.623

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

Cost Elements	Prior Years			FY 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 Total		
	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)
Flyaway Cost																		
Recurring Cost																		
DRTS Complex	205,149.833	6	1,230.899	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
DRTS CTR	-	-	59.557	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
DRTS DAGIR(†)	8,000.000	1	8.000	11,158.000	2	22.316	11,852.000	1	11.852	-	-	-	-	-	-	-	-	-
DRTS DAGIR Tier 1	-	-	-	-	-	-	-	-	-	-	-	7.894	-	-	-	-	-	7.894
DRTS DMPRC CTR Tier 1	-	-	-	-	-	4.404	-	-	-	-	-	-	-	-	-	-	-	-
DRTS DMPRC CTR Tier 2	-	-	-	-	-	8.400	-	-	11.696	-	-	11.645	-	-	-	-	-	11.645
DRTS DMPTR CTR Tier 1	-	-	-	-	-	-	-	-	3.500	-	-	3.605	-	-	-	-	-	3.605
DRTS DMPTR CTR Tier 2	-	-	-	-	-	-	-	-	3.218	-	-	3.315	-	-	-	-	-	3.315
DRTS BAX	-	-	-	-	-	-	-	-	-	-	-	6.583	-	-	-	-	-	6.583
DRTS Unmanned Aerial System (UAS) Implemenation	-	-	-	-	-	-	-	-	2.550	-	-	-	-	-	-	-	-	-
DRTS Integration	-	-	-	-	-	1.605	-	-	0.688	-	-	-	-	-	-	-	-	-
DRTS Aviation Integration	-	-	9.502	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ATS Hardware(†)	11,373.125	8	90.985	3,000.000	3	9.000	1,400.000	4	5.600	-	-	-	-	-	-	-	-	-

Exhibit P-5, Cost Analysis: PB 2022 Army		Date: May 2021
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 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 Total		
	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)
ATS CTR (Lifecycle Management)	-	-	11.615	-	-	7.030	-	-	7.242	-	-	-	-	-	-	-	-	-
CTC Live Fire Mod Human Urban Target (HUT) Kits(†)	-	-	-	-	-	-	4.730	200	0.946	-	-	-	-	-	-	-	-	-
CTC Live Fire Mod Moving Armor Targets (MAT) Kits(†)	-	-	-	-	-	-	103.000	2	0.206	-	-	-	-	-	-	-	-	-
CTC Live Fire Mod Battle Effect Simulators (BES) (60 Shot)(†)	-	-	-	-	-	-	6.000	4	0.024	-	-	-	-	-	-	-	-	-
CTC Live Fire Mod Battle Effect Simulators (BES) (6 Shot)	-	-	-	-	-	-	-	-	1.884	-	-	-	-	-	-	-	-	-
CTC Live Fire Mod Machine Gun Simulators	-	-	-	-	-	-	-	-	0.300	-	-	-	-	-	-	-	-	-
CTC Live Fire Mod Integration	-	-	-	-	-	-	-	-	2.083	-	-	-	-	-	-	-	-	-
Target Modernization	-	-	26.854	-	-	7.690	-	-	5.553	-	-	-	-	-	-	-	-	-
FASIT OPA Tails(†)	-	-	-	-	-	-	-	-	-	2,527.000	2	5.054	-	-	-	2,527.000	2	5.054
FASIT Range CTR(†)	-	-	-	-	-	-	-	-	-	235.583	60	14.135	-	-	-	235.583	60	14.135
FASIT Battlefield Effects Devices Small Arm Simulators(†)	-	-	-	-	-	-	-	-	-	30.000	30	0.900	-	-	-	30.000	30	0.900
FASIT Battle Effects Simulators (BES)6-18 Shot(†)	-	-	-	-	-	-	-	-	-	5.000	80	0.400	-	-	-	5.000	80	0.400
FASIT Battlefield Effects Devices - Main Gun Simulator(†)	-	-	-	-	-	-	-	-	-	50.000	30	1.500	-	-	-	50.000	30	1.500
FASIT Battlefield Effects Devices - Machine Gun Simulator(†)	-	-	-	-	-	-	-	-	-	19.289	45	0.868	-	-	-	19.289	45	0.868
FASIT PDSS & Cybersecurity	-	-	-	-	-	-	-	-	-	-	-	2.453	-	-	-	-	-	2.453

Exhibit P-5, Cost Analysis: PB 2022 Army		Date: May 2021
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 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 Total		
	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)
IMTS CTF	-	-	12.402	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
IMTS CTR	-	-	50.616	-	-	21.369	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Recurring Cost	-	-	*1,500.430*	-	-	*81.814*	-	-	*57.342*	-	-	*58.352*	-	-	-	-	-	*58.352*
Non Recurring Cost																		
UDAIRI Range Target Lifter	23,000.000	1	23.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ARCENT Thru Sight Video (TSV)(†)	-	-	-	2,106.000	1	2.106	-	-	-	-	-	-	-	-	-	-	-	-
Pacific Range Complex(†)	-	-	-	2,850.000	1	2.850	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Non Recurring Cost	-	-	*23.000*	-	-	*4.956*	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Flyaway Cost	**-**	**-**	***1,523.430***	**-**	**-**	***86.770***	**-**	**-**	***57.342***	**-**	**-**	***58.352***	**-**	**-**	**-**	**-**	**-**	***58.352***
Software Cost																		
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	-	-	86.972	-	-	2.180	-	-	2.172	-	-	2.070	-	-	-	-	-	2.070
Subtotal: Support - Program Management Cost	**-**	**-**	***86.972***	**-**	**-**	***2.180***	**-**	**-**	***2.172***	**-**	**-**	***2.070***	**-**	**-**	**-**	**-**	**-**	***2.070***
Support - Quality Assurance Cost																		
Quality Assurance	-	-	5.949	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Support - Quality Assurance Cost	**-**	**-**	***5.949***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Support - System Engineering Cost																		
System Engineering	-	-	7.234	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Support - System Engineering Cost	**-**	**-**	***7.234***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Gross/Weapon System Cost	**23,232.643**	**70**	**1,626.285**	**12,707.143**	**7**	**88.950**	**282.057**	**211**	**59.514**	**244.623**	**247**	**60.422**	**-**	**-**	**-**	**244.623**	**247**	**60.422**

Exhibit P-5, Cost Analysis: PB 2022 Army		Date: May 2021
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:**	

Remarks:

Digital Range Training System (DRTS) CTR Tier 1 includes replacement of all information technology (IT) equipment and software loads approximately every 7.5 years due to obsolescence, which requires a technology refreshment of equipment to keep the system fully mission capable.

Digital Range Training System (DRTS) CTR Tier 2 includes replacement of the radio player units, field cameras, and the RF infrastructure on the range approximately every 10 years due to obsolescence,which requires a technology refreshment of equipment to keep the system fully mission capable.

FY2022 is the first year that the Future Army System of Integrated Targets (FASIT) program is shown as a single program. It has subsumed the following programs: Combat Training Center Live Fire Modernization (CTC Live Fire Mod), Target Modernization, and Army Targetry Systems (ATS). In FY 2021, Combat Training Center Live Fire Modernization (CTC Live Fire Mod) was moved from SSN MA6601 to NA0105 - Ranges and Targets. On 21 April 2019, the Future Army System of Integrated Targets (FASIT) Capability Production Document was approved.

Secondary Distribution		FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Army	Quantity	4	208	245	-	245
	Total Obligation Authority	69.450	55.314	55.368	-	55.368
ANG	Quantity	3	3	-	-	-
	Total Obligation Authority	19.500	4.200	-	-	-
AR	Quantity	-	-	2	-	2
	Total Obligation Authority	-	-	5.054	-	5.054
Total: Secondary Distribution	**Quantity**	**7**	**211**	**247**	**-**	**247**
	Total Obligation Authority	**88.950**	**59.514**	**60.422**	**-**	**60.422**

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2022 Army		Date: May 2021
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
DRTS DAGIR		2020	Lockheed Martin (DRTS) / Orlando, FL 32826	Option / FFP	ACC, Orlando, FL	Mar 2020	Mar 2021	2	11,158.000	Y		Aug 2018
DRTS DAGIR		2021	Lockheed Martin (DRTS) / Orlando, FL 32826	Option / FFP	ACC, Orlando, FL	Mar 2021	Mar 2022	1	11,852.000	Y		
ATS Hardware		2020	Theissen Training Systems, Inc. / Chiefland, FL	C / IDIQ	ACC, Warren, MI	Feb 2020	Jul 2020	3	3,000.000	Y		
ATS Hardware		2021	Theissen Training Systems, Inc. / Chiefland, FL	C / IDIQ	ACC, Warren, MI	Feb 2021	Jul 2021	4	1,400.000	Y		
CTC Live Fire Mod Human Urban Target (HUT) Kits		2021	DLA (CTC Live Fire Mod) / DLA, Philadelphia, PA	C / IDIQ	DLA, Philadelphia, PA	Jan 2021	Dec 2021	200	4.730	Y		
CTC Live Fire Mod Moving Armor Targets (MAT) Kits		2021	DLA (CTC Live Fire Mod) / DLA, Philadelphia, PA	C / IDIQ	DLA, Philadelphia, PA	Jan 2021	Sep 2021	2	103.000	Y		
CTC Live Fire Mod Battle Effect Simulators (BES) (60 Shot)		2021	TBS (CTC Live Fire Mod) / TBS	C / IDIQ	ACC, Orlando, FL	Apr 2021	Oct 2021	4	6.000	Y		
FASIT OPA Tails(†)		2022	TBS (FASIT OPA Tails) / TBS	C / IDIQ	ACC, Warren, MI	Feb 2022	Jul 2022	2	2,527.000	Y		
FASIT Range CTR(†)		2022	TBS (FASIT Range CTR) / Orlando, FL 32826	C / FFP	ACC, Orlando, FL	Jan 2022	Jan 2023	60	235.583	Y		
FASIT Battlefield Effects Devices Small Arm Simulators		2022	TBS (FASIT BES) / Orlando, FL 32826	C / FFP	ACC, Orlando, FL	Apr 2022	Oct 2022	30	30.000	Y		
FASIT Battle Effects Simulators (BES)6-18 Shot		2022	TBS (FASIT BES) / Orlando, FL 32826	C / FFP	ACC, Orlando, FL	Apr 2022	Oct 2022	80	5.000	Y		
FASIT Battlefield Effects Devices - Main Gun Simulator		2022	TBS (FASIT BES) / Orlando, FL 32826	C / FFP	ACC, Orlando, FL	Apr 2022	Oct 2022	30	50.000	Y		
FASIT Battlefield Effects Devices - Machine Gun Simulator		2022	TBS (FASIT BES) / Orlando, FL 32826	C / FFP	ACC, Orlando, FL	Apr 2022	Oct 2022	45	19.289	Y		
ARCENT Thru Sight Video (TSV)		2020	GENERAL DYNAMICS ONE SOURCE LLC / FALLS CHURCH, VA 22042	SS / FFP	ACC, Orlando, FL	Mar 2020	Aug 2020	1	2,106.000	Y		Nov 2019
Pacific Range Complex		2020	Federal Prison Industries (UNICOR) / Lexington, KY 40578-1890	C / FFP	ACC, Orlando, FL	Mar 2020	Aug 2020	1	2,850.000	Y		

(†) indicates the presence of a P-21

Remarks:
* ATS contractors are Meggitt Training Systems, Inc., Suwanee, GA; SAAB Defense and Security USA, LLC, Orlando, FL; Strategic Systems, Inc., Columbus, OH; Sius Target Systems U.S.A., Inc., Irmo, SC; Theissen Training Systems, Inc., Chiefland, FL. Long term IDIQ contracts have been negotiated with all five sources. Contract awards will be made in some combination to some or all of these sources.

Army Contracting Command, (ACC) Orlando, FL

Exhibit P-21, Production Schedule: PB 2022 Army		**Date:** May 2021
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 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	
FASIT OPA Tails																															
	1	2022	ARMY	2	0	2																									2
FASIT Range CTR																															
	2	2022	ARMY	60	0	60																									60
							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 2022 Army		**Date:** May 2021
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 2022												Fiscal Year 2023												BALANCE
										Calendar Year 2022												Calendar Year 2023									
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2021	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	
FASIT OPA Tails																															
	1	2022	ARMY	2	0	2					A -	-	-	-	-	1	1														0
FASIT Range CTR																															
	2	2022	ARMY	60	0	60				A -	-	-	-	-	-	-	-	-	-	-	-	10	10	10	10	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 2022 Army		**Date:** May 2021
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 2022	1-8-5 For 2022	MAX For 2022	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 (FASIT OPA Tails) - TBS	1	48	120	0	4	6	10	0	4	6	10
2	TBS (FASIT Range CTR) - Orlando, FL 32826	1	60	150	0	3	13	16	0	3	13	16

"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 2022 Army		Date: May 2021
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 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Procurement Quantity *(Units in Each)*	38	14	13	11	-	11
Gross/Weapon System Cost *($ in Millions)*	396.959	18.985	14.405	14.116	-	14.116
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	396.959	18.985	14.405	14.116	-	14.116
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**396.959**	**18.985**	**14.405**	**14.116**	**-**	**14.116**
(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)*	10,446.289	1,356.071	1,108.077	1,283.273	-	1,283.273

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

Cost Elements	Prior Years			FY 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 Total		
	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)
Flyaway Cost																		
Recurring Cost																		
MCTC Furniture, Fixture & Equipment	35,033.750	8	280.270	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Furniture, Fixtures & Equipment Refresh(†)	1,604.944	18	28.889	2,584.000	3	7.752	2,170.000	3	6.510	1,858.200	5	9.291	-	-	-	1,858.200	5	9.291
Mission Command Equipment - Hardware(†)	858.154	26	22.312	775.000	5	3.875	800.000	3	2.400	875.000	3	2.625	-	-	-	875.000	3	2.625
Battlefield Visualization(†)	1,639.000	4	6.556	354.000	4	1.416	340.000	3	1.020	400.000	2	0.800	-	-	-	400.000	2	0.800
DIACAP / RMF(†)	2,067.750	20	41.355	1,382.000	3	4.146	1,075.000	3	3.225	-	-	-	-	-	-	-	-	-
ESS Services(†)	1,310.818	11	14.419	1,372.000	1	1.372	1,050.000	1	1.050	1,150.000	1	1.150	-	-	-	1,150.000	1	1.150
Subtotal: Recurring Cost	-	-	*393.801*	-	-	*18.561*	-	-	*14.205*	-	-	*13.866*	-	-	-	-	-	*13.866*
Subtotal: Flyaway Cost	**-**	**-**	***393.801***	**-**	**-**	***18.561***	**-**	**-**	***14.205***	**-**	**-**	***13.866***	**-**	**-**	**-**	**-**	**-**	***13.866***
Support - Program Management Cost																		
Government Management	-	-	3.158	-	-	0.424	-	-	0.200	-	-	0.250	-	-	-	-	-	0.250
Subtotal: Support - Program Management Cost	**-**	**-**	***3.158***	**-**	**-**	***0.424***	**-**	**-**	***0.200***	**-**	**-**	***0.250***	**-**	**-**	**-**	**-**	**-**	***0.250***
Gross/Weapon System Cost	**10,446.289**	**38**	**396.959**	**1,356.071**	**14**	**18.985**	**1,108.077**	**13**	**14.405**	**1,283.273**	**11**	**14.116**	**-**	**-**	**-**	**1,283.273**	**11**	**14.116**

Exhibit P-5, Cost Analysis: PB 2022 Army		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 70	**P-1 Line Item Number / Title:** 2062NA0100 / Training Devices, Nonsystem	**Item Number / Title [DODIC]:** NA0106 / NSTD Battle Command Training Center Support Prg
ID Code (A=Service Ready, B=Not Service Ready) :	**MDAP/MAIS Code:**	

Remarks:
Variations in unit cost are because of differences in the size of the site being modernized in any given year. Larger sites require more equipment, and therefore have a higher unit cost.

Secondary Distribution		FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Army	Quantity	9	11	9	-	9
	Total Obligation Authority	12.205	12.963	12.676	-	12.676
ANG	Quantity	2	1	2	-	2
	Total Obligation Authority	2.712	0.721	1.440	-	1.440
AR	Quantity	3	1	-	-	-
	Total Obligation Authority	4.068	0.721	-	-	-
Total: Secondary Distribution	**Quantity**	**14**	**13**	**11**	**-**	**11**
	Total Obligation Authority	**18.985**	**14.405**	**14.116**	**-**	**14.116**

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2022 Army		Date: May 2021
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		2020	Phoenix Logistics Inc. / Mesa, Arizona	C / FFP	ACC Orlando, FL	Jan 2020	Mar 2020	3	2,584.000	Y		
Furniture, Fixtures & Equipment Refresh		2021	Phoenix Logistics Inc. / Mesa, Arizona	C / FFP	ACC Orlando, FL	Jan 2021	Mar 2021	3	2,170.000	Y		
Furniture, Fixtures & Equipment Refresh		2022	Phoenix Logistics Inc. / Mesa, Arizona	C / FFP	ACC Orlando, FL	Jan 2022	Mar 2022	5	1,858.200	Y		
Mission Command Equipment - Hardware		2020	PEO C3T / APG- North, MD	MIPR	ACC APG MD	Jun 2020	Sep 2020	5	775.000	Y		
Mission Command Equipment - Hardware		2021	PEO C3T / APG- North, MD	MIPR	ACC APG MD	Jun 2021	Sep 2021	3	800.000	Y		
Mission Command Equipment - Hardware		2022	PEO C3T / APG- North, MD	MIPR	ACC APG MD	Jun 2022	Sep 2022	3	875.000	Y		
Battlefield Visualization		2020	PEO C3T / APG- North, MD	MIPR	ACC APG MD	Jun 2020	Sep 2020	4	354.000	Y		
Battlefield Visualization		2021	PEO C3T / APG- North, MD	MIPR	ACC APG MD	Jun 2021	Sep 2021	3	340.000	Y		
Battlefield Visualization		2022	PEO C3T / APG- North, MD	MIPR	ACC APG MD	Jun 2022	Sep 2022	2	400.000	Y		
DIACAP / RMF		2020	Phoenix Logistics Inc. / Mesa, Arizona	C / FFP	ACC Orlando, FL	Jan 2020	Mar 2020	3	1,382.000	Y		
DIACAP / RMF		2021	Phoenix Logistics Inc. / Mesa, Arizona	C / FFP	ACC Orlando, FL	Jan 2021	Mar 2021	3	1,075.000	Y		
ESS Services		2020	USACE / AL	MIPR	USACE Huntsville, AL	Oct 2019	Oct 2020	1	1,372.000	Y		
ESS Services		2021	USACE / AL	MIPR	USACE Huntsville, AL	Oct 2020	Oct 2021	1	1,050.000	Y		
ESS Services		2022	Phoenix Logistics Inc. / Mesa, Arizona	C / FFP	ACC Orlando	Oct 2021	Oct 2022	1	1,150.000	Y		

Remarks:
Items are COTS. Per the Resource Formulation Guidance, no P-21 is required for COTS items.

New Contract was awarded in 1QFY19.

Army Contracting Command, (ACC) Orlando, FL

Exhibit P-5, Cost Analysis: PB 2022 Army		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 70	**P-1 Line Item Number / Title:** 2062NA0100 / Training Devices, Nonsystem	**Item Number / Title [DODIC]:** NA0110 / NSTD - Live Training
ID Code (A=Service Ready, B=Not Service Ready) :	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Procurement Quantity *(Units in Each)*	-	-	4	4	-	4
Gross/Weapon System Cost *($ in Millions)*	-	-	9.845	8.059	-	8.059
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	-	-	9.845	8.059	-	8.059
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**-**	**-**	**9.845**	**8.059**	**-**	**8.059**
(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)*	-	-	2,461.250	2,014.750	-	2,014.750

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

Cost Elements	Prior Years			FY 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 Total		
	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)
Flyaway Cost																		
Recurring Cost																		
Soldier Monitoring System (SMS)(†)	-	-	-	-	-	-	1,220.250	4	4.881	1,206.000	4	4.824	-	-	-	1,206.000	4	4.824
Joint Pacific Multinational Readiness Capability-Instrumentation System (JPMRC-IS) PDSS	-	-	-	-	-	-	-	-	1.020	-	-	-	-	-	-	-	-	-
Home Station Instrumentation Training System (HITS) PDSS/CTR	-	-	-	-	-	-	-	-	3.095	-	-	2.889	-	-	-	-	-	2.889
Subtotal: Recurring Cost	-	-	-	-	-	-	-	-	*8.996*	-	-	*7.713*	-	-	-	-	-	*7.713*
Subtotal: Flyaway Cost	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***8.996***	**-**	**-**	***7.713***	**-**	**-**	**-**	**-**	**-**	***7.713***
Support - Program Management Cost																		
Contractor Management	-	-	-	-	-	-	-	-	0.849	-	-	0.346	-	-	-	-	-	0.346
Subtotal: Support - Program Management Cost	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***0.849***	**-**	**-**	***0.346***	**-**	**-**	**-**	**-**	**-**	***0.346***
Gross/Weapon System Cost	**-**	**-**	**-**	**-**	**-**	**-**	**2,461.250**	**4**	**9.845**	**2,014.750**	**4**	**8.059**	**-**	**-**	**-**	**2,014.750**	**4**	**8.059**

Remarks:
In FY 2021, Home Station Instrumentation Training System (HITS), Joint Pacific Multinational Readiness Capability-Instrumentation System (JPMRC-IS), and Soldier Monitoring System (SMS) were moved from SSN NA0101 to NA0110 NSTD LIVE Training.

Exhibit P-5, Cost Analysis: PB 2022 Army		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 70	**P-1 Line Item Number / Title:** 2062NA0100 / Training Devices, Nonsystem	**Item Number / Title [DODIC]:** NA0110 / NSTD - Live Training
ID Code (A=Service Ready, B=Not Service Ready) :	**MDAP/MAIS Code:**	

Secondary Distribution		FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Army	Quantity	-	4	4	-	4
	Total Obligation Authority	-	9.845	8.059	-	8.059
Total: Secondary Distribution	**Quantity**	**-**	**4**	**4**	**-**	**4**
	Total Obligation Authority	**-**	**9.845**	**8.059**	**-**	**8.059**

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2022 Army		**Date:** May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 70	**P-1 Line Item Number / Title:** 2062NA0100 / Training Devices, Nonsystem	**Item Number / Title [DODIC]:** NA0110 / NSTD - Live Training

Cost Elements	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 Monitoring System (SMS)	✓	2021	TBD - SMS / TBD	SS / FFP	ACC, Orlando	Jun 2021	Dec 2021	4	1,220.250	Y		Mar 2021
Soldier Monitoring System (SMS)		2022	TBD - SMS / TBD	SS / FFP	ACC, Orlando	Feb 2022	Oct 2022	4	1,206.000	Y		

Remarks:
Soldier Monitoring System- new Program of Record in FY2021.

Exhibit P-5, Cost Analysis: PB 2022 Army		Date: May 2021
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 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Procurement Quantity *(Units in Each)*	5,996	819	1,559	2,139	-	2,139
Gross/Weapon System Cost *($ in Millions)*	532.358	28.488	26.105	29.905	-	29.905
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	532.358	28.488	26.105	29.905	-	29.905
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**532.358**	**28.488**	**26.105**	**29.905**	**-**	**29.905**
(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)*	88.786	34.784	16.745	13.981	-	13.981

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

Cost Elements	Prior Years			FY 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 Total		
	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)
Flyaway Cost																		
Recurring Cost																		
MILES Individual Weapon System (IWS)	5.135	59,036	303.174	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MILES Tactical Vehicle System (TVS)	11.107	1,000	11.107	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
I-MILES Vehicle TESS (V-TESS)(†)	11.606	9,004	104.499	17.137	473	8.106	-	-	-	-	-	-	-	-	-	-	-	-
MILES CVTESS	25.439	1,758	44.721	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MILES Tech Refresh	-	-	12.054	-	-	3.930	-	-	3.503	-	-	-	-	-	-	-	-	-
MILES ECPs	-	-	12.714	-	-	5.500	-	-	1.000	-	-	-	-	-	-	-	-	-
MILES Initial Spares	-	-	1.600	-	-	3.844	-	-	-	-	-	-	-	-	-	-	-	-
WITS Kits(†)	-	-	-	12.009	346	4.155	12.019	1,559	18.738	12.132	2,139	25.951	-	-	-	12.132	2,139	25.951
Subtotal: Recurring Cost	-	-	*489.869*	-	-	*25.535*	-	-	*23.241*	-	-	*25.951*	-	-	-	-	-	*25.951*
Subtotal: Flyaway Cost	**-**	**-**	***489.869***	**-**	**-**	***25.535***	**-**	**-**	***23.241***	**-**	**-**	***25.951***	**-**	**-**	**-**	**-**	**-**	***25.951***
Software Cost																		
Recurring Cost																		
MILES PDSS	-	-	1.146	-	-	-	-	-	-	-	-	1.269	-	-	-	-	-	1.269
Subtotal: Recurring Cost	-	-	*1.146*	-	-	-	-	-	-	-	-	*1.269*	-	-	-	-	-	*1.269*
Subtotal: Software Cost	**-**	**-**	***1.146***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***1.269***	**-**	**-**	**-**	**-**	**-**	***1.269***
Support - Fielding Cost																		
Fielding	-	-	-	-	-	0.364	-	-	0.275	-	-	0.285	-	-	-	-	-	0.285

Exhibit P-5, Cost Analysis: PB 2022 Army		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 70	**P-1 Line Item Number / Title:** 2062NA0100 / Training Devices, Nonsystem	**Item Number / Title [DODIC]:** NA0116 / NSTD- MILES
ID Code (A=Service Ready, B=Not Service Ready) :	**MDAP/MAIS Code:**	

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

Cost Elements	Prior Years			FY 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 Total		
	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	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 - Fielding Cost	-	-	-	-	-	0.364	-	-	0.275	-	-	0.285	-	-	-	-	-	0.285
Support - Program Management Cost																		
Contractor Management	-	-	33.869	-	-	2.254	-	-	2.254	-	-	2.100	-	-	-	-	-	2.100
Subtotal: Support - Program Management Cost	-	-	33.869	-	-	2.254	-	-	2.254	-	-	2.100	-	-	-	-	-	2.100
Support - System Engineering Cost																		
System Engineering	-	-	7.496	-	-	0.335	-	-	0.335	-	-	0.301	-	-	-	-	-	0.301
Subtotal: Support - System Engineering Cost	-	-	7.496	-	-	0.335	-	-	0.335	-	-	0.301	-	-	-	-	-	0.301
Gross/Weapon System Cost	**88.786**	**5,996**	**532.358**	**34.784**	**819**	**28.488**	**16.745**	**1,559**	**26.105**	**13.981**	**2,139**	**29.905**	**-**	**-**	**-**	**13.981**	**2,139**	**29.905**

Secondary Distribution		FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Army	Quantity	819	1,559	2,139	-	2,139
	Total Obligation Authority	28.488	26.105	29.905	-	29.905
Total: Secondary Distribution	**Quantity**	**819**	**1,559**	**2,139**	**-**	**2,139**
	Total Obligation Authority	**28.488**	**26.105**	**29.905**	**-**	**29.905**

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2022 Army		Date: May 2021
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
I-MILES Vehicle TESS (V-TESS)		2020	Lockheed Martin Corporation (V-TESS) / Orlando, FL	Option / FFP	ACC, Orlando, FL	May 2020	May 2021	473	17.137	Y		
WITS Kits(†)		2020	Lockheed Martin Corporation (WITS) / Orlando, FL	Option / FFP	ACC, Orlando, FL	May 2020	May 2021	346	12.009	Y		
WITS Kits(†)		2021	Lockheed Martin Corporation (WITS) / Orlando, FL	Option / FFP	ACC,Orlando FL	Nov 2020	Nov 2021	1,559	12.019	Y		
WITS Kits(†)		2022	Lockheed Martin Corporation (WITS) / Orlando, FL	Option / FFP	ACC, Orlando, FL	Nov 2021	May 2022	2,139	12.132	Y		

(†) indicates the presence of a P-21

Remarks:
Army Contracting Command, (ACC) Orlando, FL
FY2019 and 2020 quantities (498/473) complete BOI of 25,994 kits
FY2020, 2021 and 2022 quantities (346/1559/2139) are to replace Legacy WITS kits that have reached end of useful life.
The increase in quantities enables I-MILES to replace the 9479 WITS kits before the procurement contract ends in FY24

Exhibit P-21, Production Schedule: PB 2022 Army		**Date:** May 2021
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 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	
WITS Kits																															
	1	2020	ARMY	346	0	346								A -	-	-	-	-	-	-	-	-	-	-	-	58	58	58	58	58	56
	1	2021	ARMY	1,559	0	1,559														A -	-	-	-	-	-	-	-	-	-	-	1,559
	1	2022	ARMY	2,139	0	2,139																									2,139
							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 2022 Army		**Date:** May 2021
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 2022												Fiscal Year 2023												BALANCE
							Calendar Year 2022												Calendar Year 2023												
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2021	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	
WITS Kits																															
	1	2020	ARMY	346	290	56	56																								0
	1	2021	ARMY	1,559	0	1,559	-	130	130	130	130	130	130	130	130	130	130	130	129												0
	1	2022	ARMY	2,139	0	2,139		A -	-	-	-	-	-	179	179	179	179	179	179	179	179	179	179	179	170						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 2022 Army		Date: May 2021
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 2022	1-8-5 For 2022	MAX For 2022	ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1	ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1
1	Lockheed Martin Corporation (WITS) - Orlando, FL	300	750	10,000	0	17	19	36	0	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 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 2022 Army		Date: May 2021
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 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Procurement Quantity *(Units in Each)*	12	0	7	7	-	7
Gross/Weapon System Cost *($ in Millions)*	98.417	9.097	10.166	11.414	-	11.414
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	98.417	9.097	10.166	11.414	-	11.414
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**98.417**	**9.097**	**10.166**	**11.414**	**-**	**11.414**
(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)*	8,201.417	-	1,452.286	1,630.571	-	1,630.571

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

Cost Elements	Prior Years			FY 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 Total		
	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	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	-	-	2.298	-	-	0.694	-	-	0.815	-	-	0.815	-	-	-	-	-	0.815
CTIA Continuous Tech Refresh	-	-	1.190	-	-	0.300	-	-	0.362	-	-	0.359	-	-	-	-	-	0.359
LVC-IA Fieldings	364.500	12	4.374	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LVC New Equipment Training	-	-	3.224	-	-	0.094	-	-	0.195	-	-	0.201	-	-	-	-	-	0.201
LVC-IA Spares	-	-	0.429	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LVC-IA Site Support	-	-	1.780	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Recurring Cost	-	-	*13.295*	-	-	*1.088*	-	-	*1.372*	-	-	*1.375*	-	-	-	-	-	*1.375*
Non Recurring Cost																		
LVC-IA Version Upgrade/ Tech Refresh	357.545	22	7.866	383.800	5	1.919	-	-	-	-	-	-	-	-	-	-	-	-
LVC-IA Version 4 Upgrade/Tech Refresh(†)	-	-	-	-	-	-	553.200	5	2.766	545.600	7	3.819	-	-	-	545.600	7	3.819
Subtotal: Non Recurring Cost	-	-	*7.866*	-	-	*1.919*	-	-	*2.766*	-	-	*3.819*	-	-	-	-	-	*3.819*
Subtotal: Flyaway Cost	**-**	**-**	***21.161***	**-**	**-**	***3.007***	**-**	**-**	***4.138***	**-**	**-**	***5.194***	**-**	**-**	**-**	**-**	**-**	***5.194***
Software Cost																		
Recurring Cost																		
LVC-IA PDSS	1,232.222	18	22.180	-	-	2.076	-	-	2.224	-	-	2.314	-	-	-	-	-	2.314

Exhibit P-5, Cost Analysis: PB 2022 Army		Date: May 2021
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 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 Total		
	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)
LVC-IA Core System Integration	-	-	7.428	-	-	0.647	-	-	0.684	-	-	0.673	-	-	-	-	-	0.673
CTIA PDSS	-	-	20.474	-	-	1.853	-	-	1.697	-	-	1.738	-	-	-	-	-	1.738
Subtotal: Recurring Cost	-	-	*50.082*	-	-	*4.576*	-	-	*4.605*	-	-	*4.725*	-	-	-	-	-	*4.725*
Subtotal: Software Cost	**-**	**-**	***50.082***	**-**	**-**	***4.576***	**-**	**-**	***4.605***	**-**	**-**	***4.725***	**-**	**-**	**-**	**-**	**-**	***4.725***
Logistics Cost																		
Recurring Cost																		
LVC-IA Contractor Logistics Support	-	-	2.725	-	-	0.372	-	-	0.383	-	-	0.393	-	-	-	-	-	0.393
Subtotal: Recurring Cost	-	-	*2.725*	-	-	*0.372*	-	-	*0.383*	-	-	*0.393*	-	-	-	-	-	*0.393*
Subtotal: Logistics Cost	**-**	**-**	***2.725***	**-**	**-**	***0.372***	**-**	**-**	***0.383***	**-**	**-**	***0.393***	**-**	**-**	**-**	**-**	**-**	***0.393***
Support - Program Management Cost																		
Contractor Management	-	-	23.799	-	-	1.142	-	-	1.040	-	-	1.102	-	-	-	-	-	1.102
Subtotal: Support - Program Management Cost	**-**	**-**	***23.799***	**-**	**-**	***1.142***	**-**	**-**	***1.040***	**-**	**-**	***1.102***	**-**	**-**	**-**	**-**	**-**	***1.102***
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	**8,201.417**	**12**	**98.417**	**-**	**0**	**9.097**	**1,452.286**	**7**	**10.166**	**1,630.571**	**7**	**11.414**	**-**	**-**	**-**	**1,630.571**	**7**	**11.414**

Remarks:
In FY 2021, the LVC-IA program will commence the technical refresh to upgrade system from Version 3 to Version 4 at five locations. In FY 2022, the program will continue tech refresh of the system to Version 4, to include additional integration requirement to ensure interoperability with the Synthetic Training Environment (STE).

Secondary Distribution		FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Army	Quantity	-	7	7	-	7
	Total Obligation Authority	9.097	10.166	11.414	-	11.414
Total: Secondary Distribution	**Quantity**	**0**	**7**	**7**	**-**	**7**
	Total Obligation Authority	**9.097**	**10.166**	**11.414**	**-**	**11.414**

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2022 Army		Date: May 2021
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 4 Upgrade/Tech Refresh		2021	Cole Engineering Services (T) / Orlando	C / CPFF	ACC-Orlando, FL	Nov 2020	Jan 2021	5	553.200	Y		
LVC-IA Version 4 Upgrade/Tech Refresh		2022	Cole Engineering Services (T) / Orlando	C / CPFF	ACC-Orlando, FL	Nov 2021	Jan 2022	7	545.600	Y		

Remarks:
In FY 2021, deliveries will begin for Version 4. In FY 2022, the program will continue tech refresh of the system to Version 4, to include additional integration requirement to ensure interoperability with the Synthetic Training Environment (STE).

Exhibit P-40, Budget Line Item Justification: PB 2022 Army	Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 70: Training Equipment	**P-1 Line Item Number / Title:** 2079NA2000 / Synthetic Training Environment (STE)

ID Code (A=Service Ready, B=Not Service Ready):	Program Elements for Code B Items: N/A	Other Related Program Elements: 0604121A

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026	To Complete	Total
Procurement Quantity *(Units in Each)*	-	72	42	480	-	480	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	-	14.449	13.063	122.104	-	122.104	-	-	-	-	-	-
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	-	14.449	13.063	122.104	-	122.104	-	-	-	-	-	-
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**-**	**14.449**	**13.063**	**122.104**	**-**	**122.104**	**-**	**-**	**-**	**-**	**-**	**-**
(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)*	-	200.681	311.024	254.383	-	254.383	-	-	-	-	-	-

Description:

The Synthetic Training Environment (STE) is the next generation holistic collective training capability that will enable leaders, Soldiers, and units to train where they will fight, with the partners they will fight with, and in complex operational environments to include dense urban, woodland, jungle, dessert, and sub-terrain, before the first fight begins. STE will revolutionize Army training by providing the repetition necessary at the Point of Need for improved proficiency prior to live training or operations- improving Soldier lethality and survivability. The STE program is pre-acquisition and has 5 OTAs awarded in support of prototyping capabilities to an Initial Operating Capability (IOC) of FY2023, and will implement multiple adaptive acquisition framework pathways including the Software Acquisition Pathway (SAP) and the Major Capability Acquisition (MCA) pathway. The STE will be available where training occurs (home station, combat training centers, armories, institutions, ship-board, deployed).

The STE is comprised of four main signature efforts: 1) STE-Information System (STE-IS); 2) Reconfigurable Virtual Collective Trainers (RVCT), both air and ground; 3) Soldier/Squad Virtual Trainer (S/SVT); and 4) STE LIVE. STE-IS is comprised of Synthetic Training Environment operating system consisting of One World Terrain (OWT), Training Simulation Software (TSS), and Training Management Tools (TMT). TSS/TMT will provide a single, unified training & management environment where units from Soldier/Squad to Army Service Component Command (ASCC) train in the most appropriate live, virtual, constructive, or gaming environment or in all four at once. OWT provides a 3D global terrain capability and associated information services that support virtual replication of the physical Earth and complexities of the operational environment in support Multi- Domain Operations and training at the point-of-need. The RVCT Air and Ground (RVCT A/G) will allow units to collectively train using proponent developed Combined Arms Training Strategies (CATS), on a simulated, fully interactive, real-time battlefield. S/SVT is broken into Squad Immersive Virtual Trainer (SiVT) and Soldier Virtual Trainer (SVT). SiVT is the immersive training capability delivered as part of the Integrated Visual Augmentation System (IVAS) for the close combat Squads that enables IVAS to be a fight, rehearse, and training platform. SVT, informed by the IVAS/SiVT effort, will provide training to Soldiers Army wide by providing a Weapons Skills Development, Call for Fire Trainer and Use of Force. STE LIVE focuses on the development of twelve engagement types and five instrumentation enablers. The twelve engagement types are direct fire, counter-defilade fire, indirect fire, dropped objects, placed objects, thrown objects, guided weapons, autonomous weapons, cyber, directed energy, radiant energy, and plume; the five instrumentation enablers are calculations, networks, sensors, terrains, and transmitters. A future STE line of effort includes Next Generation Constructive.

Secondary Distribution		FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026
Army	Quantity	72	42	480	-	480	-	-	-	-
	Total Obligation Authority	14.449	13.063	102.593	-	102.593	-	-	-	-
ANG	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	-	-	19.511	-	19.511	-	-	-	-

Exhibit P-40, Budget Line Item Justification: PB 2022 Army		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 70: Training Equipment	**P-1 Line Item Number / Title:** 2079NA2000 / Synthetic Training Environment (STE)	
ID Code (A=Service Ready, B=Not Service Ready):	**Program Elements for Code B Items:** N/A	**Other Related Program Elements:** 0604121A
Line Item MDAP/MAIS Code: N/A		

Secondary Distribution		FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026
Total: Secondary Distribution	Quantity	72	42	480	-	480	-	-	-	-
	Total Obligation Authority	14.449	13.063	122.104	-	122.104	-	-	-	-

Exhibit P-40, Budget Line Item Justification: PB 2022 Army	Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 70: Training Equipment	**P-1 Line Item Number / Title:** 2079NA2000 / Synthetic Training Environment (STE)

ID Code (A=Service Ready, B=Not Service Ready):	Program Elements for Code B Items: N/A	Other Related Program Elements: 0604121A

Line Item MDAP/MAIS Code: N/A

Exhibits Schedule					Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 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	NA2012 / STE LIVE TRAINING SYSTEM	P-5a			- / -	- / -	- / -	104 / 3.000	- / -	104 / 3.000
P-5	NA2014 / STE-RVCT	P-5a, P-21			- / -	- / -	- / -	118 / 29.838	- / -	118 / 29.838
P-5	NA2015 / STE ONE WORLD TERRAIN				- / -	- / -	- / -	- / 20.000	- / -	- / 20.000
P-5	NA2020 / Synthetic Training Environment (STE)	P-5a			- / -	72 / 14.449	42 / 13.063	- / -	- / -	- / -
P-5	NA2211 / STE SIVT (IVAS TRAINER)	P-5a, P-21			- / -	- / -	- / -	258 / 69.266	- / -	258 / 69.266
P-40	**Total Gross/Weapon System Cost**				**- / -**	**72 / 14.449**	**42 / 13.063**	**480 / 122.104**	**- / -**	**480 / 122.104**

*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:
Note: In FY 2022, all requirements from SSN NA2020 (Synthetic Training Environment [STE]) were realigned to SSNs: NA2012 (STE LIVE TRAINING SYSTEM), NA2014 (STE-RVCT), NA2015 (STE ONE WORLD TERRAIN), and NA2211 (STE SIVT [IVAS TRAINER]).

FY 2022 BASE procurement dollars in the amount of $122.104 million supports four of STE's signature efforts: Squad immersive Virtual Trainer (SiVT), Reconfigurable Virtual Collective Trainers (RVCT), One World Terrain (OWT), and STE Live.

STE SIVT (IVAS TRAINER) program of $69.266 million consists of:

FY 2022 Base procurement dollars in the amount of $69.266 million continues the procurement of hardware associated with the Squad immersive Virtual Trainer (SiVT) kits, in addition to, providing New Equipment Training (NET), Post Deployment Software Support (PDSS), and associated fielding support. SiVT will be deployed in support of the overarching Soldier Lethality CFT IVAS capability to meet close combat lethality fight, rehearse, train capabilities. Currently, the Synthetic Training Environment, Cross Functional Team (STE CFT) and the Program Executive Office for Simulation, Training and Instrumentation (PEO STRI) are working closely with Soldier Lethality CFT and PEO Soldier to leverage their production OTA contract for an anticipated 3rd Quarter FY 2021 award in order to meet First Unit Issued in 1st Quarter FY 2022 and an incremental approach to First Unit Equipped (FUE) in FY 2023. Program anticipates long lead times from production award to FUE for key components (Weapons Tracker [Steelville], Recoil Kit [Brasstown]) that require additional time to manufacture and integrate into the SiVT kits. NOTE: STE SIVT (IVAS TRAINER) is not a new start; program effort was previously captured under NA2020 (Synthetic Training Environment). Additionally, the unit cost seen for the SiVT Kits are estimates, and is currently in negotiations.

STE RVCT program of $29.838 million consists of:

FY 2022 Base procurement dollars in the amount of $29.838 million procures and delivers partial Low Rate Initial Production (LRIP) quantities of RVCT devices to Ft. Hood, TX to achieve RVCT Initial Operational Capability (IOC) in FY 2023.

STE OWT program funding of $20.000 million consists of:

FY 2022 Base Procurement dollars in the amount of $20.000 million for One World Terrain (OWT) will procure commercial terrain data (approx. 2 million square kilometers) required to increase the global 3D terrain coverage that replicates complex operational environments.

Exhibit P-40, Budget Line Item Justification: PB 2022 Army		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 70: Training Equipment	**P-1 Line Item Number / Title:** 2079NA2000 / Synthetic Training Environment (STE)	
ID Code (A=Service Ready, B=Not Service Ready):	**Program Elements for Code B Items:** N/A	**Other Related Program Elements:** 0604121A
Line Item MDAP/MAIS Code: N/A		

STE Live program of $3.000 million consists of:

FY 2022 Base procurement dollars in the amount of $3.000 million will support the LRIP of direct fire tactical engagement systems which is one of the twelve engagement types.

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

Other Program Funding: RDT&E located in 644121FD6 for all STE programs through FY 2021, 644121CR5 for RVCT starting in FY 2022, 644121CR6 for SiVT starting in FY 2022, 644121CR4 for OWT starting in FY 2022, and 644121CR3 for STE Live starting in FY 2022.

Exhibit P-5, Cost Analysis: PB 2022 Army		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 70	**P-1 Line Item Number / Title:** 2079NA2000 / Synthetic Training Environment (STE)	**Item Number / Title [DODIC]:** NA2012 / STE LIVE TRAINING SYSTEM
ID Code (A=Service Ready, B=Not Service Ready) :	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Procurement Quantity *(Units in Each)*	-	-	-	104	-	104
Gross/Weapon System Cost *($ in Millions)*	-	-	-	3.000	-	3.000
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	-	-	-	3.000	-	3.000
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**-**	**-**	**-**	**3.000**	**-**	**3.000**
(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)*	-	-	-	28.846	-	28.846

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

Cost Elements	Prior Years			FY 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 Total		
	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	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																		
M4(†)	-	-	-	-	-	-	-	-	-	14.226	62	0.882	-	-	-	14.226	62	0.882
M240(†)	-	-	-	-	-	-	-	-	-	31.417	12	0.377	-	-	-	31.417	12	0.377
AT 4(†)	-	-	-	-	-	-	-	-	-	53.500	6	0.321	-	-	-	53.500	6	0.321
Javelin(†)	-	-	-	-	-	-	-	-	-	117.000	4	0.468	-	-	-	117.000	4	0.468
Carl-Gustav M3A1(†)	-	-	-	-	-	-	-	-	-	63.000	4	0.252	-	-	-	63.000	4	0.252
Vehicle Kit(†)	-	-	-	-	-	-	-	-	-	10.000	8	0.080	-	-	-	10.000	8	0.080
Mortar 60mm(†)	-	-	-	-	-	-	-	-	-	60.000	4	0.240	-	-	-	60.000	4	0.240
Mortar 81mm(†)	-	-	-	-	-	-	-	-	-	60.000	4	0.240	-	-	-	60.000	4	0.240
Subtotal: Recurring Cost	-	-	-	-	-	-	-	-	-	-	-	*2.860*	-	-	-	-	-	*2.860*
Subtotal: Hardware Cost	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***2.860***	**-**	**-**	**-**	**-**	**-**	***2.860***
Support - Logistics Cost																		
Integrated Logistics Support	-	-	-	-	-	-	-	-	-	-	-	0.140	-	-	-	-	-	0.140
Subtotal: Support - Logistics Cost	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***0.140***	**-**	**-**	**-**	**-**	**-**	***0.140***
Gross/Weapon System Cost	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**28.846**	**104**	**3.000**	**-**	**-**	**-**	**28.846**	**104**	**3.000**

Remarks:
STE Live: FY 2022 Base procurement dollars in the amount of $3.000 million will support the LRIP of direct fire tactical engagement systems which is one of the twelve engagement types.

Exhibit P-5, Cost Analysis: PB 2022 Army		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 70	**P-1 Line Item Number / Title:** 2079NA2000 / Synthetic Training Environment (STE)	**Item Number / Title [DODIC]:** NA2012 / STE LIVE TRAINING SYSTEM
ID Code (A=Service Ready, B=Not Service Ready) :	**MDAP/MAIS Code:**	

Note: In FY 2022, requirements for SSN NA2012 (STE LIVE TRAINING SYSTEM) were realigned from SSN NA2020 (Synthetic Training Environment [STE]).

Secondary Distribution		FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Army	Quantity	-	-	104	-	104
	Total Obligation Authority	-	-	3.000	-	3.000
Total: Secondary Distribution	**Quantity**	**-**	**-**	**104**	**-**	**104**
	Total Obligation Authority	**-**	**-**	**3.000**	**-**	**3.000**

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2022 Army		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 70	P-1 Line Item Number / Title: 2079NA2000 / Synthetic Training Environment (STE)	Item Number / Title [DODIC]: NA2012 / STE LIVE TRAINING 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
M4		2022	TBS / TBS	C / TBD	ACC, Orlando, FL	Jun 2022	Sep 2022	62	14.226	N		
M240		2022	TBS / TBS	C / TBD	ACC, Orlando, FL	Jun 2022	Sep 2022	12	31.417	N		
AT 4		2022	TBS / TBS	C / TBD	ACC, Orlando, FL	Jun 2022	Sep 2022	6	53.500	N		
Javelin		2022	TBS / TBS	C / TBD	ACC, Orlando, FL	Jun 2022	Sep 2022	4	117.000	N		
Carl-Gustav M3A1		2022	TBS / TBS	C / TBD	ACC, Orlando, FL	Jun 2022	Sep 2022	4	63.000	N		
Vehicle Kit		2022	TBS / TBS	C / TBD	ACC, Orlando, FL	Jun 2022	Sep 2022	8	10.000	N		
Mortar 60mm		2022	TBS / TBS	C / TBD	ACC, Orlando, FL	Jun 2022	Sep 2022	4	60.000	N		
Mortar 81mm		2022	TBS / TBS	C / TBD	ACC, Orlando, FL	Jun 2022	Sep 2022	4	60.000	N		

Remarks:
STE Live: FY 2022 Base procurement dollars in the amount of $3.000 million will support the LRIP of direct fire tactical engagement systems which is one of the twelve engagement types.

Exhibit P-5, Cost Analysis: PB 2022 Army		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 70	**P-1 Line Item Number / Title:** 2079NA2000 / Synthetic Training Environment (STE)	**Item Number / Title [DODIC]:** NA2014 / STE-RVCT
ID Code (A=Service Ready, B=Not Service Ready) :	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Procurement Quantity *(Units in Each)*	-	-	-	118	-	118
Gross/Weapon System Cost *($ in Millions)*	-	-	-	29.838	-	29.838
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	-	-	-	29.838	-	29.838
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**-**	**-**	**-**	**29.838**	**-**	**29.838**
(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)*	-	-	-	252.864	-	252.864

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

Cost Elements	Prior Years			FY 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 Total		
	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	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																		
Reconfigurable Virtual Collective Trainer (Air)(†)	-	-	-	-	-	-	-	-	-	828.000	6	4.968	-	-	-	828.000	6	4.968
Reconfigurable Virtual Collective Trainer (Ground)(†)	-	-	-	-	-	-	-	-	-	1,063.611	18	19.145	-	-	-	1,063.611	18	19.145
Reconfigurable Virtual Collective Trainer (NRCM)(†)	-	-	-	-	-	-	-	-	-	688.000	1	0.688	-	-	-	688.000	1	0.688
Reconfigurable Virtual Collective Trainer (UAS)(†)	-	-	-	-	-	-	-	-	-	213.000	3	0.639	-	-	-	213.000	3	0.639
Reconfigurable Virtual Collective Trainer (SI Dismounted Soldier Trainer)(†)	-	-	-	-	-	-	-	-	-	2.178	90	0.196	-	-	-	2.178	90	0.196
Subtotal: Recurring Cost	-	-	-	-	-	-	-	-	-	-	-	*25.636*	-	-	-	-	-	*25.636*
Subtotal: Hardware Cost	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***25.636***	**-**	**-**	**-**	**-**	**-**	***25.636***
Support - Program Management Cost																		
Contractor Management	-	-	-	-	-	-	-	-	-	-	-	4.202	-	-	-	-	-	4.202
Subtotal: Support - Program Management Cost	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***4.202***	**-**	**-**	**-**	**-**	**-**	***4.202***

Exhibit P-5, Cost Analysis: PB 2022 Army		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 70	**P-1 Line Item Number / Title:** 2079NA2000 / Synthetic Training Environment (STE)	**Item Number / Title [DODIC]:** NA2014 / STE-RVCT
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 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 Total		
	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	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	-	-	-	-	-	-	-	-	-	**252.864**	**118**	**29.838**	-	-	-	**252.864**	**118**	**29.838**

Remarks:
Reconfigurable Virtual Collective Trainer: Procuring Low Rate Initial Production (LRIP) RVCT devices for fielding to Ft. Hood supports the RVCT IOC in 4QFY 2023, and establishes RVCT production base capacity to permit an orderly transition to Full Rate Production (FRP) after IOC.

Note: In FY 2022, requirements for NA2014 (STE-RVCT) were realigned from SSN NA2020 (Synthetic Training Environment [STE]).

Secondary Distribution		FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Army	Quantity	-	-	118	-	118
	Total Obligation Authority	-	-	29.838	-	29.838
Total: Secondary Distribution	**Quantity**	**-**	**-**	**118**	**-**	**118**
	Total Obligation Authority	**-**	**-**	**29.838**	**-**	**29.838**

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2022 Army		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 70	P-1 Line Item Number / Title: 2079NA2000 / Synthetic Training Environment (STE)	Item Number / Title [DODIC]: NA2014 / STE-RVCT

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
Reconfigurable Virtual Collective Trainer (Air)		2022	TBS - RVCT Air Variant Kits / TBS	C / TBD	ACC, Orlando, FL	Aug 2022	Aug 2023	6	828.000	N		
Reconfigurable Virtual Collective Trainer (Ground)(†)		2022	TBS - RVCT Ground Kits / TBS	C / TBD	ACC, Orlando, FL	Aug 2022	Aug 2023	18	1,063.611	N		
Reconfigurable Virtual Collective Trainer (NRCM)		2022	TBS - RVCT NRCM / TBS	C / TBD	ACC, Orlando, FL	Aug 2022	Aug 2023	1	688.000	N		
Reconfigurable Virtual Collective Trainer (UAS)		2022	TBS - RVCT UAS / TBS	C / TBD	ACC, Orlando, FL	Aug 2022	Aug 2023	3	213.000	N		
Reconfigurable Virtual Collective Trainer (SI Dismounted Soldier Trainer)		2022	TBS - SI Dismounted Soldier Trainer / TBS	C / TBD	ACC, Orlando, FL	Aug 2022	Feb 2023	90	2.178	N		

(†) indicates the presence of a P-21

Remarks:
Reconfigurable Virtual Collective Trainer: Procuring Low Rate Initial Production (LRIP) RVCT devices for fielding to Ft. Hood supports the RVCT IOC in 4QFY 2023, and establishes RVCT production base capacity to permit an orderly transition to Full Rate production (FRP) after IOC.

Exhibit P-21, Production Schedule: PB 2022 Army		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 70	**P-1 Line Item Number / Title:** 2079NA2000 / Synthetic Training Environment (STE)	**Item Number / Title [DODIC]:** NA2014 / STE-RVCT

Cost Elements (Units in Each)							Fiscal Year 2022												Fiscal Year 2023												BALANCE
							Calendar Year 2022												Calendar Year 2023												
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2021	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	
Reconfigurable Virtual Collective Trainer (Ground)																															
	1	2022	ARMY	18	0	18											A -	-	-	-	-	-	-	-	-	-	-	-	9	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 2022 Army		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 70	**P-1 Line Item Number / Title:** 2079NA2000 / Synthetic Training Environment (STE)	**Item Number / Title [DODIC]:** NA2014 / STE-RVCT

MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Year)			Procurement Leadtime (Months)							
					Initial				Reorder			
		MSR For 2022	1-8-5 For 2022	MAX For 2022	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 - RVCT Ground Kits - TBS	10	150	500	0	10	13	23	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 2022 Army		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 70	**P-1 Line Item Number / Title:** 2079NA2000 / Synthetic Training Environment (STE)	**Item Number / Title [DODIC]:** NA2015 / STE ONE WORLD TERRAIN
ID Code (A=Service Ready, B=Not Service Ready) :	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	-	-	-	20.000	-	20.000
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	-	-	-	20.000	-	20.000
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**-**	**-**	**-**	**20.000**	**-**	**20.000**
(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 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 Total		
	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)
Software Cost																		
Recurring Cost																		
Terrain Data	-	-	-	-	-	-	-	-	-	-	-	20.000	-	-	-	-	-	20.000
Subtotal: Recurring Cost	-	-	-	-	-	-	-	-	-	-	-	*20.000*	-	-	-	-	-	*20.000*
Subtotal: Software Cost	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***20.000***	**-**	**-**	**-**	**-**	**-**	***20.000***
Gross/Weapon System Cost	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**20.000**	**-**	**-**	**-**	**-**	**-**	**20.000**

Remarks:
The terrain data being procured by One World Terrain will be commercial available data, therefore no P5a and P21 will be required.

One World Terrain is procuring the Vricon 3D Surface model which is a highly-accurate 3-D representation of the earth produced using commercial satellite imagery that has been processed by Vricon's unique automated technology.

Note: In FY 2022, requirements for NA2015 (STE ONE WORLD TERRAIN), were realigned from SSN NA2020 (Synthetic Training Environment [STE]).

Secondary Distribution		FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Army	Quantity	-	-	-	-	-
	Total Obligation Authority	-	-	20.000	-	20.000
Total: Secondary Distribution	**Quantity**	**-**	**-**	**-**	**-**	**-**
	Total Obligation Authority	**-**	**-**	**20.000**	**-**	**20.000**

Exhibit P-5, Cost Analysis: PB 2022 Army		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 70	**P-1 Line Item Number / Title:** 2079NA2000 / Synthetic Training Environment (STE)	**Item Number / Title [DODIC]:** NA2020 / Synthetic Training Environment (STE)
ID Code (A=Service Ready, B=Not Service Ready) :	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Procurement Quantity *(Units in Each)*	-	72	42	-	-	-
Gross/Weapon System Cost *($ in Millions)*	-	14.449	13.063	-	-	-
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	-	14.449	13.063	-	-	-
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**-**	**14.449**	**13.063**	**-**	**-**	**-**
(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)*	-	200.681	311.024	-	-	-

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

Cost Elements	Prior Years			FY 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 Total		
	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	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																		
Synthetic Training Environment - Squad immersive Virtual Trainer (SiVT) Kits(†)	-	-	-	166.236	72	11.969	214.119	42	8.993	-	-	-	-	-	-	-	-	-
SiVT - Production and Fielding Support	-	-	-	-	-	2.480	-	-	0.478	-	-	-	-	-	-	-	-	-
Subtotal: Recurring Cost	-	-	-	-	-	*14.449*	-	-	*9.471*	-	-	-	-	-	-	-	-	-
Subtotal: Flyaway Cost	**-**	**-**	**-**	**-**	**-**	***14.449***	**-**	**-**	***9.471***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Software Cost																		
Recurring Cost																		
SiVT - Post Deployment Software Support (PDSS)	-	-	-	-	-	-	-	-	0.490	-	-	-	-	-	-	-	-	-
Subtotal: Recurring Cost	-	-	-	-	-	-	-	-	*0.490*	-	-	-	-	-	-	-	-	-
Subtotal: Software Cost	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***0.490***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Support - New Equipment Training (NET) Cost																		
Equipment	-	-	-	-	-	-	-	-	2.699	-	-	-	-	-	-	-	-	-
Subtotal: Support - New Equipment Training (NET) Cost	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***2.699***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Support - Program Management Cost																		

Exhibit P-5, Cost Analysis: PB 2022 Army		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 70	**P-1 Line Item Number / Title:** 2079NA2000 / Synthetic Training Environment (STE)	**Item Number / Title [DODIC]:** NA2020 / Synthetic Training Environment (STE)
ID Code (A=Service Ready, B=Not Service Ready) :	**MDAP/MAIS Code:**	

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

Cost Elements	Prior Years			FY 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 Total		
	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	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	-	-	-	-	-	-	-	-	0.403	-	-	-	-	-	-	-	-	-
Subtotal: Support - Program Management Cost	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***0.403***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Gross/Weapon System Cost	**-**	**-**	**-**	**200.681**	**72**	**14.449**	**311.024**	**42**	**13.063**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**

Remarks:
FY 2020 base procurement dollars in the amount of $14.449 Million was returned to the department to be used as a source for reprogramming to address higher priority bills. However, these funds are still reflected on the P Forms.

Note: In FY 2022, all requirements from SSN NA2020 (Synthetic Training Environment [STE]) were realigned to SSNs: NA2012 (STE LIVE TRAINING SYSTEM), NA2014 (STE-RVCT), NA2015 (STE ONE WORLD TERRAIN), and NA2211 (STE SIVT [IVAS TRAINER]).

Secondary Distribution		FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Army	Quantity	72	42	-	-	-
	Total Obligation Authority	14.449	13.063	-	-	-
Total: Secondary Distribution	**Quantity**	**72**	**42**	**-**	**-**	**-**
	Total Obligation Authority	**14.449**	**13.063**	**-**	**-**	**-**

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2022 Army		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 70	P-1 Line Item Number / Title: 2079NA2000 / Synthetic Training Environment (STE)	Item Number / Title [DODIC]: NA2020 / Synthetic Training Environment (STE)

Cost Elements	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
Synthetic Training Environment - Squad immersive Virtual Trainer (SiVT) Kits		2021	Microsoft / Redmond, WA	C / TBD	ACC, Aberdeen Proving Ground, MD	Jun 2021	Dec 2021	42	214.119	N		

Exhibit P-5, Cost Analysis: PB 2022 Army		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 70	**P-1 Line Item Number / Title:** 2079NA2000 / Synthetic Training Environment (STE)	**Item Number / Title [DODIC]:** NA2211 / STE SIVT (IVAS TRAINER)
ID Code (A=Service Ready, B=Not Service Ready) :	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Procurement Quantity *(Units in Each)*	-	-	-	258	-	258
Gross/Weapon System Cost *($ in Millions)*	-	-	-	69.266	-	69.266
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	-	-	-	69.266	-	69.266
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**-**	**-**	**-**	**69.266**	**-**	**69.266**
(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)*	-	-	-	268.473	-	268.473

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

Cost Elements	Prior Years			FY 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 Total		
	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	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																		
Squad immersive Virtual Trainer (SiVT) Kits(†)	-	-	-	-	-	-	-	-	-	214.128	258	55.245	-	-	-	214.128	258	55.245
Subtotal: Recurring Cost	-	-	-	-	-	-	-	-	-	-	-	*55.245*	-	-	-	-	-	*55.245*
Subtotal: Flyaway Cost	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***55.245***	**-**	**-**	**-**	**-**	**-**	***55.245***
Software Cost																		
Recurring Cost																		
Post Deployment Software Support (PDSS)	-	-	-	-	-	-	-	-	-	-	-	3.139	-	-	-	-	-	3.139
Subtotal: Recurring Cost	-	-	-	-	-	-	-	-	-	-	-	*3.139*	-	-	-	-	-	*3.139*
Subtotal: Software Cost	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***3.139***	**-**	**-**	**-**	**-**	**-**	***3.139***
Support - New Equipment Training (NET) Cost																		
Equipment	-	-	-	-	-	-	-	-	-	-	-	8.095	-	-	-	-	-	8.095
Subtotal: Support - New Equipment Training (NET) Cost	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***8.095***	**-**	**-**	**-**	**-**	**-**	***8.095***
Support - Program Management Cost																		
Contractor Management	-	-	-	-	-	-	-	-	-	-	-	2.787	-	-	-	-	-	2.787
Subtotal: Support - Program Management Cost	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***2.787***	**-**	**-**	**-**	**-**	**-**	***2.787***

Exhibit P-5, Cost Analysis: PB 2022 Army		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 70	**P-1 Line Item Number / Title:** 2079NA2000 / Synthetic Training Environment (STE)	**Item Number / Title [DODIC]:** NA2211 / STE SIVT (IVAS 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 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 Total		
	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	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	-	-	-	-	-	-	-	-	-	**268.473**	**258**	**69.266**	-	-	-	**268.473**	**258**	**69.266**

Remarks:
Squad immersive Virtual Trainer (SiVT) kits are required to support the training capabilities of First Unit Issued (FUI) in 1st Quarter FY 2022. Chief of Staff of the Army (CSA) and other Army Senior Leadership approved the SiVT Basis of Issue (BOI) on 23 March 2020 at the Company Moderate level totaling 864 kits. The unit cost seen for the SiVT Kits are estimates, and is currently in negotiations. The SiVT kits will be deployed in support of the overarching Soldier Lethality IVAS CFT capability to meet close combat lethality fight, rehearse, train capabilities.

Note: In FY 2022, requirements for NA2211 (STE SIVT [IVAS TRAINER]) were realigned from SSN NA2020 (Synthetic Training Environment [STE]).

Secondary Distribution		FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Army	Quantity	-	-	258	-	258
	Total Obligation Authority	-	-	49.755	-	49.755
ANG	Quantity	-	-	-	-	-
	Total Obligation Authority	-	-	19.511	-	19.511
Total: Secondary Distribution	**Quantity**	**-**	**-**	**258**	**-**	**258**
	Total Obligation Authority	**-**	**-**	**69.266**	**-**	**69.266**

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2022 Army		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 70	P-1 Line Item Number / Title: 2079NA2000 / Synthetic Training Environment (STE)	Item Number / Title [DODIC]: NA2211 / STE SIVT (IVAS 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
Squad immersive Virtual Trainer (SiVT) Kits(†)		2022	Microsoft / Redmond, WA	Option / TBD	ACC, Aberdeen Proving Ground, MD	Jan 2022	Mar 2022	258	214.128	N		

(†) indicates the presence of a P-21

Remarks:
Currently, the STE CFT and PEO STRI are working closely with Soldier Lethality CFT and PEO Soldier to leverage their production OTA contract for an anticipated 3rd Quarter FY 2021 award in order to meet First Unit Issued in 1st Quarter FY 2022 and First Unit Equipped (FUE) in FY 2023. The approved SiVT Basis of Issue (BOI) will leverage these production and fielding efforts by remaining in sync with Project Manager, Integrated Visual Augmentation System (PM IVAS) fielding approach. FY 2022 will exercise the option on the production OTA for procurement of the SiVT kits.

Exhibit P-21, Production Schedule: PB 2022 Army		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 70	**P-1 Line Item Number / Title:** 2079NA2000 / Synthetic Training Environment (STE)	**Item Number / Title [DODIC]:** NA2211 / STE SIVT (IVAS TRAINER)

Cost Elements (Units in Each)							Fiscal Year 2022												Fiscal Year 2023												BALANCE
										Calendar Year 2022												Calendar Year 2023									
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2021	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	
Squad immersive Virtual Trainer (SiVT) Kits																															
	1	2022	ARMY	258	0	258				A -	-	29	29	29	29	29	29	29	29	26											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 2022 Army		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 70	**P-1 Line Item Number / Title:** 2079NA2000 / Synthetic Training Environment (STE)	**Item Number / Title [DODIC]:** NA2211 / STE SIVT (IVAS TRAINER)

MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Year)			Procurement Leadtime (Months)							
					Initial				Reorder			
		MSR For 2022	1-8-5 For 2022	MAX For 2022	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	Microsoft - Redmond, WA	1	175	300	0	9	6	15	0	4	2	6

Remarks:
Squad immersive Virtual Trainer (SiVT) Kits: Program anticipates long lead times from production award to first delivery for FY2022 planned quantities due to for key components (Weapons Tracker [Steelville], Recoil Kit [Brasstown]) that require additional time to manufacture and integrate into the SiVT kits.

"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 2022 Army	Date: May 2021
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 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026	To Complete	Total
Procurement Quantity *(Units in Each)*	55	21	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	603.385	4.840	-	-	-	-	-	-	-	-	-	-
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	603.385	4.840	-	-	-	-	-	-	-	-	-	-
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**603.385**	**4.840**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
(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)*	10,970.636	230.476	-	-	-	-	-	-	-	-	-	-

Description:

The Aviation Combined Arms Tactical Trainer (AVCATT) is Army Aviation's only Collective Training System of Record to ensure the Active, Reserve and Army National Guard Aviation Units are trained and ready. AVCATT enables unit collective and combined arms air-ground training for AH-64, UH-60, CH-47, UH-72, and UH-72 aircrews within the Live, Virtual, Constructive (LVC) Integrated Training Environment (ITE). The AVCATT also supports the training of Non-Rated crew members in crew coordination, flight, aerial gunnery, hoist, and slingload related tasks via the Non-Rated Crewmember Manned Module (NCM3); which can be linked to AVCATT's UH-60, CH-47, and UH-72 cockpit configurations to support a unit's specific Mission Training Requirements.

Supports the Synthetic Training Environment (STE), which is the next generation holistic collective training capability that will train units at the point of need within the entire range of Multi-Domain Battle tasks in support of Unified Land Operations in a complex operational environment. STE will be a synthetic environment (virtual, constructive, and gaming) utilizing common authoritative data and models that is cloud-enabled through the Army Enterprise Network, and is service-based through the Common Operating Environment.

Secondary Distribution		FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026
Army	Quantity	12	-	-	-	-	-	-	-	-
	Total Obligation Authority	2.766	-	-	-	-	-	-	-	-
ANG	Quantity	5	-	-	-	-	-	-	-	-
	Total Obligation Authority	0.922	-	-	-	-	-	-	-	-
AR	Quantity	4	-	-	-	-	-	-	-	-
	Total Obligation Authority	1.152	-	-	-	-	-	-	-	-
Total: Secondary Distribution	**Quantity**	**21**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
	Total Obligation Authority	**4.840**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**

Justification:

Exhibit P-40, Budget Line Item Justification: PB 2022 Army		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 70: Training Equipment	**P-1 Line Item Number / Title:** 6800NA0173 / Aviation Combined Arms Tactical Trainer	
ID Code (A=Service Ready, B=Not Service Ready):	**Program Elements for Code B Items:** N/A	**Other Related Program Elements:** N/A
Line Item MDAP/MAIS Code: N/A		

Effective FY 2021, the Aviation Combined Arms Tactical Trainer Program is in sustainment, and does not have procurement or RDTE funds programmed.

NA0173 has no FY2022 funding request.

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

Exhibit P-40, Budget Line Item Justification: PB 2022 Army	Date: May 2021
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 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026	To Complete	Total
Procurement Quantity *(Units in Each)*	97	45	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	94.915	13.463	1.950	11.642	-	11.642	-	-	-	-	-	-
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	94.915	13.463	1.950	11.642	-	11.642	-	-	-	-	-	-
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**94.915**	**13.463**	**1.950**	**11.642**	**-**	**11.642**	**-**	**-**	**-**	**-**	**-**	**-**
(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)*	978.505	299.178	-	-	-	-	-	-	-	-	-	-

Description:

The Games for Training (GFT) Program prepares Soldiers and Leaders for executing Unified Land Operations by delivering robust training and mission rehearsal capabilities while providing state of the art hardware in order to train soldiers utilizing the advanced software capabilities being developed for the Army Futures command new training initiatives. GFT provides a bridge of proven legacy systems and takes advantage of investments in training scenarios developed under the Virtual Battlespace platform of game-based solutions for units in a shared environment, providing varying levels of immersion best suited for military applications. The GFT program satisfies the Active, National Guard, and Army Reserves' educational requirements in the Operational, Institutional, and Self-Development Training Domains with a low-overhead, flexible, persistent training capability on geo- specific and geo-typical terrain that is relevant with all military platforms and weapon systems. This gaming capability allows units and commanders to train individual and collective tasks at the company and below level with minimal amount of resourcing required (land, ammunition, transportation, etc.) in support of Multi-Domain Operations (MDO) 2028. Through the use of GFT systems, commanders are able to refine and rehearse unit Tactics, Techniques, and Procedures (TTPs) and Standard Operating Procedures (SOPs) prior to executing live, large-scale training events. GFT trains higher echelon units and staffs by facilitating Tactical Exercises Without Troops (TEWT).

Secondary Distribution		FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026
Army	Quantity	16	-	-	-	-	-	-	-	-
	Total Obligation Authority	5.748	1.016	6.065	-	6.065	-	-	-	-
ANG	Quantity	26	-	-	-	-	-	-	-	-
	Total Obligation Authority	6.758	0.823	4.910	-	4.910	-	-	-	-
AR	Quantity	3	-	-	-	-	-	-	-	-
	Total Obligation Authority	0.957	0.111	0.667	-	0.667	-	-	-	-
Total: Secondary Distribution	**Quantity**	**45**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
	Total Obligation Authority	**13.463**	**1.950**	**11.642**	**-**	**11.642**	**-**	**-**	**-**	**-**

Exhibit P-40, Budget Line Item Justification: PB 2022 Army	Date: May 2021
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 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/ MAIS Code	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*
P-5	NA0176 / Gaming Technology In Support of Army Training	P-5a			97 / 94.915	45 / 13.463	- / 1.950	- / 11.642	- / -	- / 11.642
P-40	**Total Gross/Weapon System Cost**				**97 / 94.915**	**45 / 13.463**	**- / 1.950**	**- / 11.642**	**- / -**	**- / 11.642**

*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 2022 Base procurement dollars in the amount of $11.642 million will provide state of the art hardware and maintain the Virtual Battlespace software in order to train soldiers utilizing the advanced software capabilities being developed for the Army Futures Command new training initiatives. 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. Funding will provide program management, testing, cyber security, fielding, and system technical support of fielded GFT Systems to bridge the gap and support Army Futures Command new training initiatives. Lastly, funding will continue to provide Government Furnished Material to ensure continued distribution of gaming content and to facilitate technical support to the Army training community.

Exhibit P-5, Cost Analysis: PB 2022 Army		Date: May 2021
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 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Procurement Quantity *(Units in Each)*	97	45	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	94.915	13.463	1.950	11.642	-	11.642
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	94.915	13.463	1.950	11.642	-	11.642
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**94.915**	**13.463**	**1.950**	**11.642**	**-**	**11.642**
(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)*	978.505	299.178	-	-	-	-

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

Cost Elements	Prior Years			FY 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 Total		
	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	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	163.887	53	8.686	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Stryker Virtual Collective Trainer	1,551.875	8	12.415	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Recurring Cost	-	-	*21.101*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Flyaway Cost	**-**	**-**	***21.101***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Hardware Cost																		
Non Recurring Cost																		
Gaming Systems Refresh(†)	133.780	91	12.174	170.556	45	7.675	-	-	-	-	-	4.127	-	-	-	-	-	4.127
Gaming Toolkits/ Ancillary Equipment	-	-	0.023	-	-	-	-	-	-	-	-	0.075	-	-	-	-	-	0.075
RMF Hardware	-	-	1.220	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SVCT Spares	-	-	0.737	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Non Recurring Cost	-	-	*14.154*	-	-	*7.675*	-	-	-	-	-	*4.202*	-	-	-	-	-	*4.202*
Subtotal: Hardware Cost	**-**	**-**	***14.154***	**-**	**-**	***7.675***	**-**	**-**	**-**	**-**	**-**	***4.202***	**-**	**-**	**-**	**-**	**-**	***4.202***
Software Cost																		
Recurring Cost																		
VBS3 License	-	-	26.812	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Exhibit P-5, Cost Analysis: PB 2022 Army		Date: May 2021
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 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 Total		
	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	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	-	-	7.831	-	-	0.329	-	-	-	-	-	3.600	-	-	-	-	-	3.600
Subtotal: Recurring Cost	-	-	*34.643*	-	-	*0.329*	-	-	-	-	-	*3.600*	-	-	-	-	-	*3.600*
Non Recurring Cost																		
Modifications and Upgrades	-	-	2.998	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Non Recurring Cost	-	-	*2.998*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Software Cost	**-**	**-**	***37.641***	**-**	**-**	***0.329***	**-**	**-**	**-**	**-**	**-**	***3.600***	**-**	**-**	**-**	**-**	**-**	***3.600***
Support - Fielding Cost																		
Fielding	-	-	4.718	-	-	1.865	-	-	-	-	-	1.658	-	-	-	-	-	1.658
Subtotal: Support - Fielding Cost	**-**	**-**	***4.718***	**-**	**-**	***1.865***	**-**	**-**	**-**	**-**	**-**	***1.658***	**-**	**-**	**-**	**-**	**-**	***1.658***
Support - Government Furnished Materials Cost																		
Government Furnished Materials	-	-	3.741	-	-	0.582	-	-	0.599	-	-	0.611	-	-	-	-	-	0.611
Subtotal: Support - Government Furnished Materials Cost	**-**	**-**	***3.741***	**-**	**-**	***0.582***	**-**	**-**	***0.599***	**-**	**-**	***0.611***	**-**	**-**	**-**	**-**	**-**	***0.611***
Support - New Equipment Training (NET) Cost																		
Equipment	-	-	1.526	-	-	0.500	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Support - New Equipment Training (NET) Cost	**-**	**-**	***1.526***	**-**	**-**	***0.500***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Support - Program Management Cost																		
Contractor Management	-	-	10.262	-	-	1.612	-	-	0.529	-	-	0.999	-	-	-	-	-	0.999
Subtotal: Support - Program Management Cost	**-**	**-**	***10.262***	**-**	**-**	***1.612***	**-**	**-**	***0.529***	**-**	**-**	***0.999***	**-**	**-**	**-**	**-**	**-**	***0.999***
Support - System Technical Support (STS) Cost																		
System Technical Support (STS)	-	-	1.772	-	-	0.900	-	-	0.822	-	-	0.572	-	-	-	-	-	0.572
Subtotal: Support - System Technical Support (STS) Cost	**-**	**-**	***1.772***	**-**	**-**	***0.900***	**-**	**-**	***0.822***	**-**	**-**	***0.572***	**-**	**-**	**-**	**-**	**-**	***0.572***
Gross/Weapon System Cost	**978.505**	**97**	**94.915**	**299.178**	**45**	**13.463**	**-**	**-**	**1.950**	**-**	**-**	**11.642**	**-**	**-**	**-**	**-**	**-**	**11.642**

Remarks:

Exhibit P-5, Cost Analysis: PB 2022 Army		Date: May 2021
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:**	

Originally, FY 2021 was the last year of procurement funds and the GFT program was set to divest in FY 2023. The strategy has since changed due to the change in the Synthetic Training Environment (STE) Increment I fielding timeline. Procurement funding was added back into the GFT program from FY 2022 through FY 2027 to reduce the risk of gaps in training capability, bridge the gap to STE Increment I fielding, and synchronize the investment.

The increase seen for VBS3 Software Concurrency on P-5 in FY22 is due to acquiring the latest Virtual Battlespace 3 (VBS3) software updates and related support in order to bridge training gap until STE Increment is fielded. Additionally, the increases seen for fielding and program management on P-5 is result of acquiring support personnel in order to execute the Gaming System refreshes.

Secondary Distribution		FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Army	Quantity	16	-	-	-	-
	Total Obligation Authority	5.748	1.016	6.065	-	6.065
ANG	Quantity	26	-	-	-	-
	Total Obligation Authority	6.758	0.823	4.910	-	4.910
AR	Quantity	3	-	-	-	-
	Total Obligation Authority	0.957	0.111	0.667	-	0.667
Total: Secondary Distribution	**Quantity**	**45**	**-**	**-**	**-**	**-**
	Total Obligation Authority	**13.463**	**1.950**	**11.642**	**-**	**11.642**

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2022 Army		Date: May 2021
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
Gaming Systems Refresh		2020	TBD / TBD	TBD	ACC Orlando, FL	Jan 2020	Mar 2020	45	170.556	Y		

Remarks:
New Gaming Hardware Suites/ Gaming System Refresh are Commercial Off-The-Shelf (COTS) equipment procured through the ARMY Computer Hardware Enterprise Software and Solutions (CHESS) Program.

In FY 2022, there will be a contract action for Gaming Systems Refresh similar to FY 2019 contract strategy.

Exhibit P-40, Budget Line Item Justification: PB 2022 Army	Date: May 2021
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 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026	To Complete	Total
Procurement Quantity *(Units in Each)*	2	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	311.927	3.030	2.511	-	-	-	-	-	-	-	-	-
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	311.927	3.030	2.511	-	-	-	-	-	-	-	-	-
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**311.927**	**3.030**	**2.511**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
(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)*	155,963.500	-	-	-	-	-	-	-	-	-	-	-

Description:

Calibration Sets Equipment (CALSETS) consists of calibration instrumentation housed in fixed facilities or contained within tactical shelters with accompanying power generation equipment. The CALSETS instrumentation provides support to maintenance units and area support organizations from brigade to multi-theater sustainment operations and ensures a cascading transfer of precision accuracy originating from the US National Institute of Standards and Technology (NIST). The calibration sets are designed to support 90 percent of the Army test, measurement and diagnostic equipment (TMDE) workload with an objective of 98 percent. The instruments and equipment procured through this program are assembled into several set configurations (AN/GSM-286, AN/GSM-287, AN/GSM-439, AN/GSM-440, AN/GSM-442, AN/GSM-26(V)1, AN/GSM-26(V)2 and Secondary Reference) and two tactical calibration shelters (AN/GSM-705 and AN/GSM-421A(V)2). These calibration standards sets are integral to verifying the accuracy of TMDE with mandated traceability to accuracy standards. State-of-the-art calibration equipment is required to ensure that advanced technology weapons and systems are maintained at the required state of operational readiness. Systems supported by the Calibration Sets include, but are not limited to, unmanned aerial vehicles (Shadow/Gray Eagle); military signal and electronic intelligence operations; tactical and strategic communications (Single Channel Ground and Airborne Radio System (SINCGARS)); and ground, missile and aviation platforms such as the Army Family of Medium Tactical Vehicles (FMTV), Abrams, Multiple Launch Rocket System, Patriot, Apache, Blackhawk, Chinook and all future weapon systems.

Army Acquisition Objective (AAO): AN/GSM-286 - 45; AN/GSM-287 - 67; AN/GSM-439 - 38; AN/GSM-440 - 33; AN/GSM-705 - 27; AN/GSM-421A(V)2 - 27; AN/GSM-26(V)1 - 162; AN/GSM-26(V)2 - 34; AN/GSM-422 - 1; Secondary Reference Standards Set - 11

Secondary Distribution		FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026
Army	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	1.818	2.511	-	-	-	-	-	-	-
ANG	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	1.212	-	-	-	-	-	-	-	-
Total: Secondary Distribution	**Quantity**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
	Total Obligation Authority	**3.030**	**2.511**	**-**	**-**	**-**	**-**	**-**	**-**	**-**

Exhibit P-40, Budget Line Item Justification: PB 2022 Army		Date: May 2021
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:
SSN N10000 has no FY 2022 funding request. Funds in this program for FY 2022 through FY 2026 have been realigned to Test Equipment Modernization, SSN G02510.

Exhibit P-40, Budget Line Item Justification: PB 2022 Army	Date: May 2021
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 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026	To Complete	Total
Procurement Quantity *(Units in Each)*	1,949	2,891	1,653	2,981	-	2,981	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	885.587	81.058	77.214	42.934	-	42.934	-	-	-	-	-	-
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	885.587	81.058	77.214	42.934	-	42.934	-	-	-	-	-	-
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**885.587**	**81.058**	**77.214**	**42.934**	**-**	**42.934**	**-**	**-**	**-**	**-**	**-**	**-**
(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)*	454.380	28.038	46.711	14.403	-	14.403	-	-	-	-	-	-

Description:

The Department of Defense (DoD) has designated the Integrated Family of Test Equipment (IFTE), comprised of the Maintenance Support Device (MSD) and the Next Generation Automatic Test System (NGATS), as the authorized Army standard for Field and Sustainment maintenance. MSD provides at-system automatic test and diagnostic support and the NGATS consolidates 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 provide state-of-the-art test and diagnostic capabilities reducing costs and logistics footprints while providing the Warfighter fix-forward capability for current and future weapon systems in Multi-Domain Operations (MDO). The systems are designed to support the Cross-Functional Teams (CFT) in the Army Forces Command (AFC) as they mature in accordance with the DoD Automatic Test System (ATS) Strategy.

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 with CFT linkage to Long Range Precision Fires (LRPF); Next Generation Combat Vehicle (NGCV); Future Vertical Lift (FVL); Network Command, Control, Communication and Intelligence (NC3I); Air and Missile Defense (AMD); and Soldier Lethality. 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. 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 field and sustainment level maintenance, fault isolation, diagnostics, testing and repair directly to the Army's current and future major weapons systems in order to maintain the readiness and availability of those combat systems. NGATS is Joint Services Next-Generation Test (NxTest) compliant, and includes interservice testing and diagnostic support capability. It is the single automatic test and diagnostic solution in the Army, 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 thus reducing the logistics footprint and associated support costs. 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 DoD, and all Services are expected to transition demonstrated technologies into their ATS programs. Current NGATS capabilities support Abrams, Bradley, Common Remotely Operated Weapons Station (CROWS), Counter Radio-Controlled Improvised Explosive Device (RCIED) Electronic Warfare (CREW)/Duke, Husky Mounted Detection System (HMDS), and Mounted Family of Computer Systems (MFoCS), with developments ongoing for Blackhawk, M777, LRPF Paladin Extended Range Cannon-Artillery (ERC-A), Armored Multi-Purpose Vehicle (AMPV) in the Next Generation Combat Vehicle (NGCV) CFT.

Exhibit P-40, Budget Line Item Justification: PB 2022 Army		Date: May 2021
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		

Army Acquisition Objective (AAO): MSD - 30,068; AV-MSD - 5,002; WATS - 9,334; NGATS - 175

Secondary Distribution		FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026
Army	Quantity	2,686	1,208	2,188	-	2,188	-	-	-	-
	Total Obligation Authority	64.795	70.560	38.190	-	38.190	-	-	-	-
ANG	Quantity	4	1	-	-	-	-	-	-	-
	Total Obligation Authority	14.988	4.003	-	-	-	-	-	-	-
AR	Quantity	201	444	793	-	793	-	-	-	-
	Total Obligation Authority	1.275	2.651	4.744	-	4.744	-	-	-	-
Total: Secondary Distribution	**Quantity**	**2,891**	**1,653**	**2,981**	**-**	**2,981**	**-**	**-**	**-**	**-**
	Total Obligation Authority	**81.058**	**77.214**	**42.934**	**-**	**42.934**	**-**	**-**	**-**	**-**

Exhibit P-40, Budget Line Item Justification: PB 2022 Army		Date: May 2021
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 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 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		1,937 / 655.353	2,874 / 17.358	1,636 / 9.158	2,976 / 16.688	- / -	2,976 / 16.688
P-5	MB4004 / Next Generation Automatic Test System (NGATS)	P-5a, P-21	A		12 / 230.234	17 / 63.700	17 / 68.056	5 / 26.246	- / -	5 / 26.246
P-40	**Total Gross/Weapon System Cost**				**1,949 / 885.587**	**2,891 / 81.058**	**1,653 / 77.214**	**2,981 / 42.934**	**- / -**	**2,981 / 42.934**

*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 2022 base procurement dollars of $42.934 million will fund acquisition of 5 Next Generation Automatic Test Systems (NGATS), 2,272 Maintenance Support Devices (MSD) and 704 Wireless At-Platform Test Set (WATS) to support Base requirements. The acquisitions will satisfy critical test and diagnostic requirements of Army warfighting systems and 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, Common Remotely Operated Weapons Station (CROWS), Counter Radio-Controlled Improvised Explosive Device (RCIED) Electronic Warfare (CREW)/Duke, Husky Mounted Detection System (HMDS), and Mounted Family of Computer Systems (MFoCS), with developments ongoing for Blackhawk, M777, Long Range Precision Fires (LRPF) Paladin Extended Range Cannon-Artillery (ERC-A), Armored Multi-Purpose Vehicle (AMPV) in the Next Generation Combat Vehicle (NGCV) CFT, 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 2022 funding will support sustainment level maintenance modernization. This funding also implements the net-centric logistics capability ensuring maintenance data is leveraged at all support levels through a closed loop data sharing architecture that supports the future logistics concepts as well as improved diagnostics by linking embedded diagnostics and condition-based maintenance. Acquisition of the MSDs will satisfy approved Army force structure requirements. This equipment provides critical test and diagnostics support for weapons and support systems such as the Abrams, Bradley, Stryker, Blackhawk, Chinook, Apache, Patriot, and the Army's diesel-powered tactical wheeled vehicles.

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 2022 Army		Date: May 2021
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 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Procurement Quantity *(Units in Each)*	1,937	2,874	1,636	2,976	-	2,976
Gross/Weapon System Cost *($ in Millions)*	655.353	17.358	9.158	16.688	-	16.688
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	655.353	17.358	9.158	16.688	-	16.688
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**655.353**	**17.358**	**9.158**	**16.688**	**-**	**16.688**
(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)*	338.334	6.040	5.598	5.608	-	5.608

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

Cost Elements	Prior Years			FY 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 Total		
	Unit Cost *($ K)*	Qty *(Each)*	Total Cost *($ M)*	Unit Cost *($ K)*	Qty *(Each)*	Total Cost *($ M)*	Unit Cost *($ K)*	Qty *(Each)*	Total Cost *($ M)*	Unit Cost *($ K)*	Qty *(Each)*	Total Cost *($ M)*	Unit Cost *($ K)*	Qty *(Each)*	Total Cost *($ M)*	Unit Cost *($ K)*	Qty *(Each)*	Total Cost *($ M)*
Hardware Cost																		
Recurring Cost																		
Maintenance Support Device (MSD) (Rugged)(†)	13.971	26,833	374.876	3.934	1,874	7.372	3.962	891	3.530	3.969	1,704	6.763	-	-	-	3.969	1,704	6.763
MSD (Light)(†)	4.248	536	2.277	2.630	1,000	2.630	3.104	297	0.922	3.106	568	1.764	-	-	-	3.106	568	1.764
MSD Type 3	6.854	144	0.987	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Aviation MSD/Aircraft Notebook	3.437	1,733	5.956	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Internal Combustion Engine (ICE)/Wireless At-Platform Test Set (WATS) Kits(†)	-	-	12.176	6.201	463	2.871	6.201	448	2.778	6.200	704	4.365	-	-	-	6.200	704	4.365
Subtotal: Recurring Cost	-	-	*396.272*	-	-	*12.873*	-	-	*7.230*	-	-	*12.892*	-	-	-	-	-	*12.892*
Subtotal: Hardware Cost	**-**	**-**	***396.272***	**-**	**-**	***12.873***	**-**	**-**	***7.230***	**-**	**-**	***12.892***	**-**	**-**	**-**	**-**	**-**	***12.892***
Package Fielding Cost																		
Recurring Cost																		
New Equipment Training/Fielding Support	-	-	6.127	-	-	0.406	-	-	0.336	-	-	0.549	-	-	-	-	-	0.549
Shipping Equipment to the Field	-	-	0.939	-	-	0.063	-	-	0.071	-	-	0.073	-	-	-	-	-	0.073
Subtotal: Recurring Cost	-	-	*7.066*	-	-	*0.469*	-	-	*0.407*	-	-	*0.622*	-	-	-	-	-	*0.622*
Subtotal: Package Fielding Cost	**-**	**-**	***7.066***	**-**	**-**	***0.469***	**-**	**-**	***0.407***	**-**	**-**	***0.622***	**-**	**-**	**-**	**-**	**-**	***0.622***

Exhibit P-5, Cost Analysis: PB 2022 Army		Date: May 2021
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 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 Total		
	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)
Logistics Cost																		
Recurring Cost																		
Technical and Logistics Data/ Services	-	-	1.545	-	-	0.631	-	-	0.169	-	-	0.176	-	-	-	-	-	0.176
Technical Publications	-	-	0.320	-	-	0.066	-	-	0.068	-	-	0.070	-	-	-	-	-	0.070
Subtotal: Recurring Cost	-	-	*1.865*	-	-	*0.697*	-	-	*0.237*	-	-	*0.246*	-	-	-	-	-	*0.246*
Subtotal: Logistics Cost	**-**	**-**	***1.865***	**-**	**-**	***0.697***	**-**	**-**	***0.237***	**-**	**-**	***0.246***	**-**	**-**	**-**	**-**	**-**	***0.246***
Support - Initial Spares and Repair Parts Cost																		
Initial Spares and Repair Parts	-	-	0.996	-	-	0.500	-	-	-	-	-	0.194	-	-	-	-	-	0.194
Subtotal: Support - Initial Spares and Repair Parts Cost	**-**	**-**	***0.996***	**-**	**-**	***0.500***	**-**	**-**	**-**	**-**	**-**	***0.194***	**-**	**-**	**-**	**-**	**-**	***0.194***
Support - Production Engineering Cost																		
Production Engineering	-	-	19.486	-	-	1.344	-	-	0.588	-	-	0.727	-	-	-	-	-	0.727
Subtotal: Support - Production Engineering Cost	**-**	**-**	***19.486***	**-**	**-**	***1.344***	**-**	**-**	***0.588***	**-**	**-**	***0.727***	**-**	**-**	**-**	**-**	**-**	***0.727***
Support - Program Management Cost																		
Government Management	-	-	9.364	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Support - Program Management Cost	**-**	**-**	***9.364***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Support - Quality Assurance Cost																		
Quality Assurance	-	-	0.767	-	-	0.073	-	-	0.075	-	-	0.077	-	-	-	-	-	0.077
Subtotal: Support - Quality Assurance Cost	**-**	**-**	***0.767***	**-**	**-**	***0.073***	**-**	**-**	***0.075***	**-**	**-**	***0.077***	**-**	**-**	**-**	**-**	**-**	***0.077***
Support - System Engineering Cost																		
System Engineering	-	-	215.877	-	-	0.619	-	-	0.543	-	-	1.400	-	-	-	-	-	1.400
Subtotal: Support - System Engineering Cost	**-**	**-**	***215.877***	**-**	**-**	***0.619***	**-**	**-**	***0.543***	**-**	**-**	***1.400***	**-**	**-**	**-**	**-**	**-**	***1.400***
Support - System Technical Support (STS) Cost																		
System Technical Support (STS)	-	-	1.610	-	-	0.710	-	-	0.063	-	-	0.515	-	-	-	-	-	0.515
Subtotal: Support - System Technical Support (STS) Cost	**-**	**-**	***1.610***	**-**	**-**	***0.710***	**-**	**-**	***0.063***	**-**	**-**	***0.515***	**-**	**-**	**-**	**-**	**-**	***0.515***
Support - System Test and Evaluation Cost																		

Exhibit P-5, Cost Analysis: PB 2022 Army		Date: May 2021
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 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 Total		
	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)
Test and Evaluation Support	-	-	2.042	-	-	0.073	-	-	0.015	-	-	0.015	-	-	-	-	-	0.015
Subtotal: Support - System Test and Evaluation Cost	***-***	***-***	***2.042***	***-***	***-***	***0.073***	***-***	***-***	***0.015***	***-***	***-***	***0.015***	***-***	***-***	***-***	***-***	***-***	***0.015***
Gross/Weapon System Cost	**338.334**	**1,937**	**655.353**	**6.040**	**2,874**	**17.358**	**5.598**	**1,636**	**9.158**	**5.608**	**2,976**	**16.688**	**-**	**-**	**-**	**5.608**	**2,976**	**16.688**

Secondary Distribution		FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Army	Quantity	2,673	1,192	2,183	-	2,183
	Total Obligation Authority	16.083	6.507	11.944	-	11.944
AR	Quantity	201	444	793	-	793
	Total Obligation Authority	1.275	2.651	4.744	-	4.744
Total: Secondary Distribution	**Quantity**	**2,874**	**1,636**	**2,976**	**-**	**2,976**
	Total Obligation Authority	**17.358**	**9.158**	**16.688**	**-**	**16.688**

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2022 Army		Date: May 2021
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
Maintenance Support Device (MSD) (Rugged)(†)		2020	DRS Network & Imaging Systems, LLC / Melbourne, FL	C / FFP	ACC-Redstone	Mar 2020	Feb 2021	1,874	3.934	Y		
Maintenance Support Device (MSD) (Rugged)(†)		2021	DRS Network & Imaging Systems, LLC / Melbourne, FL	C / FFP	ACC-Redstone	May 2021	Oct 2021	891	3.962	Y		
Maintenance Support Device (MSD) (Rugged)(†)		2022	DRS Network and Imaging Systems, LLC / Melbourne, FL	C / FFP	ACC-Redstone	Feb 2022	Aug 2022	1,704	3.969	Y		
MSD (Light)		2020	DRS Network and Imaging Systems, LLC / Melbourne, FL	C / FFP	ACC-New Jersey	Mar 2020	Dec 2020	1,000	2.630	Y		
MSD (Light)		2021	DRS Network and Imaging Systems, LLC / Melbourne, FL	C / FFP	ACC-New Jersey	May 2021	Sep 2021	297	3.104	Y		
MSD (Light)		2022	DRS Network & Imaging Systems, LLC / Melbourne, FL	C / FFP	ACC-New Jersey	Feb 2022	Aug 2022	568	3.106	Y		
Internal Combustion Engine (ICE)/ Wireless At-Platform Test Set (WATS) Kits		2022	TBS / TBD	C / FFP	ACC-Redstone	Mar 2022	Sep 2022	704	6.200	Y		Jan 2021

(†) 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 31 percent of the MSD fleet equipped with a wireless at-platform test set (WATS) required for testing diesel powered engines and an approximate mix of 75 percent rugged and 25 percent light configurations.

Exhibit P-21, Production Schedule: PB 2022 Army		Date: May 2021
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 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	
Maintenance Support Device (MSD) (Rugged)																															
Prior Years Deliveries: 26833																															
	1	2020	ARMY	1,874	0	1,874						A -	-	-	-	-	-	-	-	-	-	-	76	350	350	350	350	350	48		0
	1	2021	ARMY	891	0	891																				A -	-	-	-	-	891
	2	2022	ARMY	1,704	0	1,704																									1,704
							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 2022 Army		Date: May 2021
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 2022												Fiscal Year 2023												BALANCE
							Calendar Year 2022												Calendar Year 2023												
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2021	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	
Maintenance Support Device (MSD) (Rugged)																															
Prior Years Deliveries: 26833																															
	1	2020	ARMY	1,874	1,874	0																									0
	1	2021	ARMY	891	0	891	350	350	191																						0
	2	2022	ARMY	1,704	0	1,704					A -	-	-	-	-	-	350	350	350	350	304										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 2022 Army		Date: May 2021
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 2022	1-8-5 For 2022	MAX For 2022	ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1	ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1
1	DRS Network & Imaging Systems, LLC - Melbourne, FL	10	1,500	4,000	2	23	6	29	0	4	7	11
2	DRS Network and Imaging Systems, LLC - Melbourne, FL	10	1,000	2,500	7	5	6	11	0	4	7	11

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 2022 Army		Date: May 2021
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 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Procurement Quantity *(Units in Each)*	12	17	17	5	-	5
Gross/Weapon System Cost *($ in Millions)*	230.234	63.700	68.056	26.246	-	26.246
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	230.234	63.700	68.056	26.246	-	26.246
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**230.234**	**63.700**	**68.056**	**26.246**	**-**	**26.246**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)						
Initial Spares *($ in Millions)*	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Thousands)*	19,186.167	3,747.059	4,003.294	5,249.200	-	5,249.200

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

Cost Elements	Prior Years			FY 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 Total		
	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)
Hardware Cost																		
Recurring Cost																		
Next Generation Automatic Test System(†)	3,034.810	21	63.731	2,483.647	17	42.222	2,523.529	17	42.900	3,000.000	5	15.000	-	-	-	3,000.000	5	15.000
Low-Rate Initial Production (LRIP) Upgrade	-	-	0.600	-	-	1.800	-	-	2.700	-	-	-	-	-	-	-	-	-
ATE Shelters	-	-	2.302	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Recurring Cost	-	-	*66.633*	-	-	*44.022*	-	-	*45.600*	-	-	*15.000*	-	-	-	-	-	*15.000*
Subtotal: Hardware Cost	**-**	**-**	***66.633***	**-**	**-**	***44.022***	**-**	**-**	***45.600***	**-**	**-**	***15.000***	**-**	**-**	**-**	**-**	**-**	***15.000***
Software Cost																		
Recurring Cost																		
Test Program Set Support	-	-	26.894	-	-	4.035	-	-	6.829	-	-	3.880	-	-	-	-	-	3.880
Subtotal: Recurring Cost	-	-	*26.894*	-	-	*4.035*	-	-	*6.829*	-	-	*3.880*	-	-	-	-	-	*3.880*
Subtotal: Software Cost	**-**	**-**	***26.894***	**-**	**-**	***4.035***	**-**	**-**	***6.829***	**-**	**-**	***3.880***	**-**	**-**	**-**	**-**	**-**	***3.880***
Logistics Cost																		
Recurring Cost																		
Technical and Logistics Data/ Services	-	-	7.021	-	-	1.700	-	-	1.752	-	-	0.584	-	-	-	-	-	0.584
Subtotal: Recurring Cost	-	-	*7.021*	-	-	*1.700*	-	-	*1.752*	-	-	*0.584*	-	-	-	-	-	*0.584*

Exhibit P-5, Cost Analysis: PB 2022 Army		Date: May 2021
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 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 Total		
	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	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: Logistics Cost	-	-	7.021	-	-	1.700	-	-	1.752	-	-	0.584	-	-	-	-	-	0.584
Support - Initial Spares and Repair Parts Cost																		
Initial Spares and Repair Parts	-	-	33.567	-	-	9.231	-	-	9.500	-	-	2.732	-	-	-	-	-	2.732
Subtotal: Support - Initial Spares and Repair Parts Cost	-	-	33.567	-	-	9.231	-	-	9.500	-	-	2.732	-	-	-	-	-	2.732
Support - Production Engineering Cost																		
Production Engineering	-	-	36.920	-	-	3.139	-	-	2.748	-	-	2.133	-	-	-	-	-	2.133
Subtotal: Support - Production Engineering Cost	-	-	36.920	-	-	3.139	-	-	2.748	-	-	2.133	-	-	-	-	-	2.133
Support - Program Management Cost																		
Government Management	-	-	7.625	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Support - Program Management Cost	-	-	7.625	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Support - System Technical Support (STS) Cost																		
System Technical Support (STS)	-	-	51.574	-	-	1.573	-	-	1.627	-	-	1.917	-	-	-	-	-	1.917
Subtotal: Support - System Technical Support (STS) Cost	-	-	51.574	-	-	1.573	-	-	1.627	-	-	1.917	-	-	-	-	-	1.917
Gross/Weapon System Cost	**19,186.167**	**12**	**230.234**	**3,747.059**	**17**	**63.700**	**4,003.294**	**17**	**68.056**	**5,249.200**	**5**	**26.246**	**-**	**-**	**-**	**5,249.200**	**5**	**26.246**

Secondary Distribution		FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Army	Quantity	13	16	5	-	5
	Total Obligation Authority	48.712	64.053	26.246	-	26.246
ANG	Quantity	4	1	-	-	-
	Total Obligation Authority	14.988	4.003	-	-	-
Total: Secondary Distribution	**Quantity**	**17**	**17**	**5**	**-**	**5**
	Total Obligation Authority	**63.700**	**68.056**	**26.246**	**-**	**26.246**

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2022 Army		Date: May 2021
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(†)		2020	Boeing Company / St. Louis	C / FFP	ACC-New Jersey	Jan 2020	Nov 2020	17	2,483.647	Y		
Next Generation Automatic Test System(†)		2021	Boeing Company / St. Louis	C / FFP	ACC-New Jersey	Dec 2020	Jun 2021	17	2,523.529	Y		
Next Generation Automatic Test System(†)		2022	TBS / TBD	C / FFP	ACC-New Jersey	Jan 2022	Jan 2023	5	3,000.000	Y		Dec 2020

(†) indicates the presence of a P-21

Exhibit P-21, Production Schedule: PB 2022 Army		Date: May 2021
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 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	
Next Generation Automatic Test System																															
Prior Years Deliveries: 21																															
	1	2020	ARMY	17	0	17				A -	-	-	-	-	-	-	-	-	-	2	2	2	2	1	-	-	1	3	3	1	0
	1	2021	ARMY	17	0	17															A -	-	-	-	-	-	3	3	1	2	8
	2	2022	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 2022 Army		**Date:** May 2021
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 2022												Fiscal Year 2023												BALANCE
							Calendar Year 2022												Calendar Year 2023												
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2021	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: 21																															
	1	2020	ARMY	17	17	0																									0
	1	2021	ARMY	17	9	8	2	2	2	2																					0
	2	2022	ARMY	5	0	5				A -	-	-	-	-	-	-	-	-	-	-	-	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 2022 Army		**Date:** May 2021
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 2022	1-8-5 For 2022	MAX For 2022	ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1	ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1
1	Boeing Company - St. Louis	1	10	30	8	8	13	21	0	2	7	9
2	TBS - TBD	1	10	30	3	12	13	25	0	0	0	0

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 2022 Army	Date: May 2021
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 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026	To Complete	Total
Procurement Quantity *(Units in Each)*	236	1,811	753	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	347.548	10.732	14.941	-	-	-	-	-	-	-	-	-
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	347.548	10.732	14.941	-	-	-	-	-	-	-	-	-
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**347.548**	**10.732**	**14.941**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
(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)*	1,472.661	5.926	19.842	-	-	-	-	-	-	-	-	-

Description:

The Test Equipment Modernization (TEMOD) program improves the materiel readiness of Army weapon systems; minimizes general-purpose Test, Measurement, and Diagnostic Equipment (TMDE) proliferation and obsolescence; and also reduces the Army's operations and support costs. These objectives are accomplished through the cost-effective acquisition of state-of-the-art test equipment that is employed for verifying accuracy, operability and safety of Army weapon systems and for supporting those systems at all maintenance levels. The TEMOD program procures general-purpose TMDE that supports all Army commodities and is essential to the continued support of weapon system platforms such as the Abrams Tank, Bradley Fighting Vehicle, Apache Helicopter, Patriot, and Single-Channel Ground and Airborne Radio System (SINCGARS), as well as other weapon systems scheduled for fielding to the current and future forces. The Telecommunications System Test Set analyzes signal quality between communication systems to ensure data exchange accurately. The High End Oscilloscope is used to test, adjust, repair and align communications and electronic systems. The Low End Oscilloscope is a hand-held portable device used to adjust, repair, and align communications and electronic systems. The Radio Frequency (RF) Power Meter Test Set is a solid-state, microprocessor based RF microwatt meter. It has the ability to measure oscillator power, gain, insertion loss, RF attenuation, and antenna, low-power transmitter, signal generator, standing wave ratio and return loss measurements with directional couplers and slotted lines on radios, satellite communication systems and RADAR systems (Sentinel and Patriot). The Optical Time Domain Reflectometer will be used to test fiber optic cables used to connect computer networks. The TS-4549 Radio Test Set will be used to test, troubleshoot and repair Army radios. It supports both ground and air communications systems. Future acquisitions for this program will include the CM-523 Signal Generator. By using a streamlined acquisition process, the TEMOD program realizes discounts of up to 55 percent from the manufacturers' suggested retail prices.

Army Acquisition Objective (AAO): Telecommunications System Test Set - 495; Oscilloscope (High End) - 583; Oscilloscope (Low End) - 1294; RF Power Meter Test Set - 586; Optical Time Domain Reflectometer - 455; Radio Test Set -1519

Secondary Distribution		FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026
Army	Quantity	784	322	-	-	-	-	-	-	-
	Total Obligation Authority	5.875	6.380	-	-	-	-	-	-	-
ANG	Quantity	668	280	-	-	-	-	-	-	-
	Total Obligation Authority	3.158	5.573	-	-	-	-	-	-	-
AR	Quantity	359	151	-	-	-	-	-	-	-
	Total Obligation Authority	1.699	2.988	-	-	-	-	-	-	-

Exhibit P-40, Budget Line Item Justification: PB 2022 Army			Date: May 2021
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 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026
Total: Secondary Distribution	Quantity	1,811	753	-	-	-	-	-	-	-
	Total Obligation Authority	10.732	14.941	-	-	-	-	-	-	-

Justification:
SSN N11000 has no FY 2022 funding request. Funds in this program for FY 2022 have been realigned to Test Equipment Modernization, SSN G02510.

Exhibit P-40, Budget Line Item Justification: PB 2022 Army	Date: May 2021
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:** 0605G02510 / 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 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	400	-	400	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	-	-	-	24.304	-	24.304	-	-	-	-	-	-
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	-	-	-	24.304	-	24.304	-	-	-	-	-	-
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**-**	**-**	**-**	**24.304**	**-**	**24.304**	**-**	**-**	**-**	**-**	**-**	**-**
(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)*	-	-	-	60.760	-	60.760	-	-	-	-	-	-

Description:

The Test Equipment Modernization (TEMOD) program includes Calibration Sets Equipment (CALSETS), Communications Test Equipment and General Purpose Electronic Test Equipment (GPETE). The TEMOD family of products provide equipment and systems which are vital to maintaining readiness of Army combat and combat support systems and support Army Futures Command (AFC) Cross Functional Team (CFT) (Future Vertical Lift; Long Range Precision Fires; Network Command, Control, Communications and Intelligence (C3I); Soldier Lethality; Air and Missile Defense and Next Generation Combat Vehicle) weapon systems. The CALSETS program consists of calibration instrumentation housed in fixed facilities or contained within tactical shelters with accompanying power generation equipment. The CALSETS instrumentation provides support to maintenance units and area support organizations from brigade to multi-theater sustainment operations and ensures a cascading transfer of precision accuracy originating from the US National Institute of Standards and Technology (NIST). The calibration sets are designed to support 90 percent of the Army test, measurement and diagnostic equipment (TMDE) workload with an objective of 98 percent. The instruments and equipment procured through this program are assembled into several set configurations (AN/GSM-286, AN/GSM-287, AN/GSM-439, AN/GSM-440, AN/GSM-442, AN/GSM-26(V)1, AN/GSM-26(V)2 and Secondary Reference) and two tactical calibration shelters (AN/GSM-705 and AN/GSM-421A(V)2). These calibration standards sets are integral to verifying the accuracy of TMDE with mandated traceability to accuracy standards. State-of-the-art calibration equipment is required to ensure that advanced technology weapons and systems are maintained at the required state of operational readiness. Systems supported by the Calibration Sets include, but are not limited to, unmanned aerial vehicles (Shadow/Gray Eagle); military signal and electronic intelligence operations; tactical and strategic communications (Single Channel Ground and Airborne Radio System (SINCGARS)); 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; and the CFT weapon systems. The Communications Test Equipment program provides for acquisition of the TS-4549 Radio Test Set (RTS). The RTS will be used to test, troubleshoot and repair Army radios. It supports both ground and air communications systems including legacy SINCGARS radios and today's Software Defined radios. The RTS will also be expandable and upgradable to support future radio systems. GPETE improves the materiel readiness of Army weapon systems; minimizes general-purpose 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. GPETE 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 SINCGARS, as well as other weapon systems scheduled for fielding to the current and future forces. GPETE acquisitions include the Telecommunications System Test Set, the High End Oscilloscope, the Low End Oscilloscope, the Radio Frequency (RF) Power Meter Test Set, the Optical Time Domain Reflectometer, and the CM-523 Spectrum Analyzer. The Telecommunication Systems 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 RF Power Meter Test Set is a solid-state, microprocessor based RF microwatt meter. It has the ability to measure oscillator power, gain, insertion loss, RF attenuation, and antenna, low-power transmitter, signal generator, standing wave ratio and return loss measurements with directional couplers and slotted lines on radios, satellite communication systems and RADAR systems (Sentinel and Patriot). The Optical Time Domain Reflectometer will be used to test fiber optic cables used to connect computer networks. The CM-523 Spectrum Analyzer measures the magnitude of an input signal versus frequency, primarily to measure power of the spectrum of known and unknown signals, for communication and weapon systems.

Exhibit P-40, Budget Line Item Justification: PB 2022 Army		Date: May 2021
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:** 0605G02510 / 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		

Army Acquisition Objectives (AAO):
CALSETS: AN/GSM-286 - 45; AN/GSM-287 - 67; AN/GSM-439 - 38; AN/GSM-440 - 33; AN/GSM-705 - 27; AN/GSM-421A(V)2 - 27; AN/GSM-26(V)1 - 162; AN/GSM-26(V)2 - 34; AN/GSM-422 - 1; Secondary Reference Standards Set - 11
Communication Test Equipment: TS-4549 Radio Test Set -1519
GPETE: Telecommunications System Test Set - 495; Oscilloscope (High End) - 583; Oscilloscope (Low End) - 1294; RF Power Meter Test Set - 586; Optical Time Domain Reflectometer - 455

Secondary Distribution		FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026
Army	Quantity	-	-	174	-	174	-	-	-	-
	Total Obligation Authority	-	-	11.406	-	11.406	-	-	-	-
ANG	Quantity	-	-	147	-	147	-	-	-	-
	Total Obligation Authority	-	-	9.171	-	9.171	-	-	-	-
AR	Quantity	-	-	79	-	79	-	-	-	-
	Total Obligation Authority	-	-	3.727	-	3.727	-	-	-	-
Total: Secondary Distribution	**Quantity**	**-**	**-**	**400**	**-**	**400**	**-**	**-**	**-**	**-**
	Total Obligation Authority	**-**	**-**	**24.304**	**-**	**24.304**	**-**	**-**	**-**	**-**

Exhibit P-40, Budget Line Item Justification: PB 2022 Army	Date: May 2021
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:** 0605G02510 / 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 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 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	G02515 / Calibration Sets Eqiupment (CALSETS)	P-5a	A		- / -	- / -	- / -	- / 5.482	- / -	- / 5.482
P-5	G02517 / Communications Test Equipment	P-5a	A		- / -	- / -	- / -	25 / 1.930	- / -	25 / 1.930
P-5	G02519 / GENERAL PURPOSE TEST EQUIPMENT (GPETE)	P-5a, P-21	A		- / -	- / -	- / -	375 / 16.892	- / -	375 / 16.892
P-40	**Total Gross/Weapon System Cost**				**- / -**	**- / -**	**- / -**	**400 / 24.304**	**- / -**	**400 / 24.304**

*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 2022 base procurement dollars in the amount of $24.118 million will fund acquisition of multi-product calibrators, multi-function calibrators, current coils, force/torque indicators, reference signal generators, 25 TS-4549 Radio Test Sets, 207 Telecommunication Systems Test Set, 148 Optical Time Domain Reflectometers, and 17 Spectrum Analyzers to support Base requirements. These acquisitions will support various electronic test, measurement and diagnostic equipment and communications, missile, ground vehicle, RADAR systems and multiple cross functional teams. TEMOD uses multi-year Indefinite Delivery, Indefinite Quantity, Firm Fixed Price contracts to reduce costs and accommodate changes in acquisition requirements. Lack of capabilities provided by this equipment will impact unit readiness levels and incur unnecessary risks for Army personnel and equipment.

FY 2022 base procurement dollars of $0.186 million will fund acquisition of 3 Spectrum Analyzers to support the Enduring Requirement for European Deterrance Initiative.

This line is not a new start. Funds in this program are a realignment of funds from Calibration Sets Equipment, SSN N10000, and Test Equipment Modernization, SSN N11000.

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 2022 Army		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 80	**P-1 Line Item Number / Title:** 0605G02510 / Test Equipment Modernization (TEMOD)	**Item Number / Title [DODIC]:** G02515 / Calibration Sets Eqiupment (CALSETS)

ID Code (A=Service Ready, B=Not Service Ready) : A

MDAP/MAIS Code:

Resource Summary	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	-	-	-	5.482	-	5.482
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	-	-	-	5.482	-	5.482
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**-**	**-**	**-**	**5.482**	**-**	**5.482**
(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 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 Total		
	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	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																		
Multi-Function Calibrator, Fluke 5730A(†)	-	-	-	-	-	-	-	-	-	54.000	24	1.296	-	-	-	54.000	24	1.296
Multi-Product Calibrator(†)	-	-	-	-	-	-	-	-	-	23.000	16	0.368	-	-	-	23.000	16	0.368
Coil Attachment(†)	-	-	-	-	-	-	-	-	-	1.500	58	0.087	-	-	-	1.500	58	0.087
Force/Torque Indicator Replacement(†)	-	-	-	-	-	-	-	-	-	10.000	72	0.720	-	-	-	10.000	72	0.720
Reference Signal Generator, Fluke 96040A(†)	-	-	-	-	-	-	-	-	-	53.600	20	1.072	-	-	-	53.600	20	1.072
Subtotal: Recurring Cost	-	-	-	-	-	-	-	-	-	-	-	*3.543*	-	-	-	-	-	*3.543*
Non Recurring Cost																		
Support Equipment/ Accessories	-	-	-	-	-	-	-	-	-	-	-	0.067	-	-	-	-	-	0.067
Subtotal: Non Recurring Cost	-	-	-	-	-	-	-	-	-	-	-	*0.067*	-	-	-	-	-	*0.067*
Subtotal: Hardware Cost	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***3.610***	**-**	**-**	**-**	**-**	**-**	***3.610***
Package Fielding Cost																		
Recurring Cost																		

Exhibit P-5, Cost Analysis: PB 2022 Army		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 80	P-1 Line Item Number / Title: 0605G02510 / Test Equipment Modernization (TEMOD)	Item Number / Title [DODIC]: G02515 / Calibration Sets Eqiupment (CALSETS)
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 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 Total		
	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)
New Equipment Training/Fielding Support	-	-	-	-	-	-	-	-	-	-	-	0.246	-	-	-	-	-	0.246
Subtotal: Recurring Cost	-	-	-	-	-	-	-	-	-	-	-	*0.246*	-	-	-	-	-	*0.246*
Subtotal: Package Fielding Cost	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***0.246***	**-**	**-**	**-**	**-**	**-**	***0.246***
Logistics Cost																		
Recurring Cost																		
Technical and Logistics Data/ Services	-	-	-	-	-	-	-	-	-	-	-	0.603	-	-	-	-	-	0.603
Technical Publications	-	-	-	-	-	-	-	-	-	-	-	0.111	-	-	-	-	-	0.111
Subtotal: Recurring Cost	-	-	-	-	-	-	-	-	-	-	-	*0.714*	-	-	-	-	-	*0.714*
Subtotal: Logistics Cost	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***0.714***	**-**	**-**	**-**	**-**	**-**	***0.714***
Support - Initial Spares and Repair Parts Cost																		
Initial Spares and Repair Parts	-	-	-	-	-	-	-	-	-	-	-	0.032	-	-	-	-	-	0.032
Subtotal: Support - Initial Spares and Repair Parts Cost	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***0.032***	**-**	**-**	**-**	**-**	**-**	***0.032***
Support - Production Engineering Cost																		
Production Engineering	-	-	-	-	-	-	-	-	-	-	-	0.256	-	-	-	-	-	0.256
Subtotal: Support - Production Engineering Cost	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***0.256***	**-**	**-**	**-**	**-**	**-**	***0.256***
Support - Quality Assurance Cost																		
Quality Assurance	-	-	-	-	-	-	-	-	-	-	-	0.102	-	-	-	-	-	0.102
Subtotal: Support - Quality Assurance Cost	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***0.102***	**-**	**-**	**-**	**-**	**-**	***0.102***
Support - System Technical Support (STS) Cost																		
System Technical Support (STS)	-	-	-	-	-	-	-	-	-	-	-	0.422	-	-	-	-	-	0.422
Subtotal: Support - System Technical Support (STS) Cost	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***0.422***	**-**	**-**	**-**	**-**	**-**	***0.422***
Support - System Test and Evaluation Cost																		
Test and Evaluation Support	-	-	-	-	-	-	-	-	-	-	-	0.100	-	-	-	-	-	0.100

Exhibit P-5, Cost Analysis: PB 2022 Army		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 80	**P-1 Line Item Number / Title:** 0605G02510 / Test Equipment Modernization (TEMOD)	**Item Number / Title [DODIC]:** G02515 / Calibration Sets Eqiupment (CALSETS)
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 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 Total		
	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	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 Test and Evaluation Cost	-	-	-	-	-	-	-	-	-	-	-	***0.100***	-	-	-	-	-	***0.100***
Gross/Weapon System Cost	-	-	-	-	-	-	-	-	-	-	-	**5.482**	-	-	-	-	-	**5.482**

Secondary Distribution		FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Army	Quantity	-	-	-	-	-
	Total Obligation Authority	-	-	3.262	-	3.262
ANG	Quantity	-	-	-	-	-
	Total Obligation Authority	-	-	2.220	-	2.220
Total: Secondary Distribution	**Quantity**	-	-	-	-	-
	Total Obligation Authority	-	-	**5.482**	-	**5.482**

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2022 Army		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 80	**P-1 Line Item Number / Title:** 0605G02510 / Test Equipment Modernization (TEMOD)	**Item Number / Title [DODIC]:** G02515 / Calibration Sets Eqiupment (CALSETS)

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
Multi-Function Calibrator, Fluke 5730A		2022	Fluke Corporation / Everett, WA	SS / FFP	ACC-Redstone	Feb 2022	May 2022	24	54.000	Y		
Multi-Product Calibrator		2022	Transmille Calibration / Colchester, VT	C / FFP	ACC-Redstone	Feb 2022	May 2022	16	23.000	Y		
Coil Attachment		2022	TBS (2) / TBD	C / FFP	ACC-Redstone	Feb 2022	May 2022	58	1.500	N	Oct 2020	Jan 2021
Force/Torque Indicator Replacement		2022	TBS (3) / TBD	C / FFP	ACC-Redstone	Mar 2022	Jun 2022	72	10.000	N	Nov 2020	Feb 2022
Reference Signal Generator, Fluke 96040A		2022	Fluke Corporation / Everett, WA	SS / FFP	ACC-Redstone	Mar 2022	Jun 2022	20	53.600	Y		

Exhibit P-5, Cost Analysis: PB 2022 Army		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 80	**P-1 Line Item Number / Title:** 0605G02510 / Test Equipment Modernization (TEMOD)	**Item Number / Title [DODIC]:** G02517 / Communications Test Equipment
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Procurement Quantity *(Units in Each)*	-	-	-	25	-	25
Gross/Weapon System Cost *($ in Millions)*	-	-	-	1.930	-	1.930
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	-	-	-	1.930	-	1.930
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**-**	**-**	**-**	**1.930**	**-**	**1.930**
(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)*	-	-	-	77.200	-	77.200

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

Cost Elements	Prior Years			FY 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 Total		
	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	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																		
TS-4549 Radio Test Set(†)	-	-	-	-	-	-	-	-	-	46.160	25	1.154	-	-	-	46.160	25	1.154
Subtotal: Recurring Cost	-	-	-	-	-	-	-	-	-	-	-	*1.154*	-	-	-	-	-	*1.154*
Non Recurring Cost																		
Support Equipment	-	-	-	-	-	-	-	-	-	-	-	0.035	-	-	-	-	-	0.035
Subtotal: Non Recurring Cost	-	-	-	-	-	-	-	-	-	-	-	*0.035*	-	-	-	-	-	*0.035*
Subtotal: Hardware Cost	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***1.189***	**-**	**-**	**-**	**-**	**-**	***1.189***
Package Fielding Cost																		
Recurring Cost																		
New Equipment Training/Fielding Support	-	-	-	-	-	-	-	-	-	-	-	0.100	-	-	-	-	-	0.100
Subtotal: Recurring Cost	-	-	-	-	-	-	-	-	-	-	-	*0.100*	-	-	-	-	-	*0.100*
Subtotal: Package Fielding Cost	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***0.100***	**-**	**-**	**-**	**-**	**-**	***0.100***
Logistics Cost																		
Recurring Cost																		
Technical and Logistics Data/ Services	-	-	-	-	-	-	-	-	-	-	-	0.177	-	-	-	-	-	0.177

Exhibit P-5, Cost Analysis: PB 2022 Army		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 80	**P-1 Line Item Number / Title:** 0605G02510 / Test Equipment Modernization (TEMOD)	**Item Number / Title [DODIC]:** G02517 / Communications Test 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 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 Total		
	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)
Technical Publications	-	-	-	-	-	-	-	-	-	-	-	0.110	-	-	-	-	-	0.110
Subtotal: Recurring Cost	-	-	-	-	-	-	-	-	-	-	-	*0.287*	-	-	-	-	-	*0.287*
Subtotal: Logistics Cost	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***0.287***	**-**	**-**	**-**	**-**	**-**	***0.287***
Support - Production Engineering Cost																		
Production Engineering	-	-	-	-	-	-	-	-	-	-	-	0.224	-	-	-	-	-	0.224
Subtotal: Support - Production Engineering Cost	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***0.224***	**-**	**-**	**-**	**-**	**-**	***0.224***
Support - Quality Assurance Cost																		
Quality Assurance	-	-	-	-	-	-	-	-	-	-	-	0.015	-	-	-	-	-	0.015
Subtotal: Support - Quality Assurance Cost	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***0.015***	**-**	**-**	**-**	**-**	**-**	***0.015***
Support - System Technical Support (STS) Cost																		
System Technical Support (STS)	-	-	-	-	-	-	-	-	-	-	-	0.015	-	-	-	-	-	0.015
Subtotal: Support - System Technical Support (STS) Cost	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***0.015***	**-**	**-**	**-**	**-**	**-**	***0.015***
Support - System Test and Evaluation Cost																		
Test and Evaluation Support	-	-	-	-	-	-	-	-	-	-	-	0.100	-	-	-	-	-	0.100
Subtotal: Support - System Test and Evaluation Cost	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***0.100***	**-**	**-**	**-**	**-**	**-**	***0.100***
Gross/Weapon System Cost	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**77.200**	**25**	**1.930**	**-**	**-**	**-**	**77.200**	**25**	**1.930**

Secondary Distribution		FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Army	Quantity	-	-	11	-	11
	Total Obligation Authority	-	-	0.824	-	0.824
ANG	Quantity	-	-	9	-	9
	Total Obligation Authority	-	-	0.720	-	0.720
AR	Quantity	-	-	5	-	5
	Total Obligation Authority	-	-	0.386	-	0.386
Total: Secondary Distribution	**Quantity**	**-**	**-**	**25**	**-**	**25**
	Total Obligation Authority	**-**	**-**	**1.930**	**-**	**1.930**

Exhibit P-5, Cost Analysis: PB 2022 Army		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 80	**P-1 Line Item Number / Title:** 0605G02510 / Test Equipment Modernization (TEMOD)	**Item Number / Title [DODIC]:** G02517 / Communications Test Equipment
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 2022 Army		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 80	**P-1 Line Item Number / Title:** 0605G02510 / Test Equipment Modernization (TEMOD)	**Item Number / Title [DODIC]:** G02517 / Communications Test 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
TS-4549 Radio Test Set		2022	TBS / TBD	C / FFP	ACC-New Jersey	Apr 2022	Oct 2022	25	46.160	Y		Feb 2022

Exhibit P-5, Cost Analysis: PB 2022 Army		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 80	**P-1 Line Item Number / Title:** 0605G02510 / Test Equipment Modernization (TEMOD)	**Item Number / Title [DODIC]:** G02519 / GENERAL PURPOSE TEST EQUIPMENT (GPETE)
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Procurement Quantity *(Units in Each)*	-	-	-	375	-	375
Gross/Weapon System Cost *($ in Millions)*	-	-	-	16.892	-	16.892
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	-	-	-	16.892	-	16.892
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**-**	**-**	**-**	**16.892**	**-**	**16.892**
(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)*	-	-	-	45.045	-	45.045

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

Cost Elements	Prior Years			FY 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 Total		
	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	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																		
TS-4544 Telecommunication Systems Test Set(†)	-	-	-	-	-	-	-	-	-	42.435	207	8.784	-	-	-	42.435	207	8.784
TS-4558 Optical Time Domain Reflectometer(†)	-	-	-	-	-	-	-	-	-	22.655	148	3.353	-	-	-	22.655	148	3.353
CM-523 Spectrum Analyzer(†)	-	-	-	-	-	-	-	-	-	22.650	20	0.453	-	-	-	22.650	20	0.453
Subtotal: Recurring Cost	-	-	-	-	-	-	-	-	-	-	-	*12.590*	-	-	-	-	-	*12.590*
Non Recurring Cost																		
Support Equipment/ Accessories	-	-	-	-	-	-	-	-	-	-	-	0.067	-	-	-	-	-	0.067
Subtotal: Non Recurring Cost	-	-	-	-	-	-	-	-	-	-	-	*0.067*	-	-	-	-	-	*0.067*
Subtotal: Hardware Cost	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***12.657***	**-**	**-**	**-**	**-**	**-**	***12.657***
Package Fielding Cost																		
Recurring Cost																		
New Equipment Training/Fielding Support	-	-	-	-	-	-	-	-	-	-	-	0.080	-	-	-	-	-	0.080
Subtotal: Recurring Cost	-	-	-	-	-	-	-	-	-	-	-	*0.080*	-	-	-	-	-	*0.080*

Exhibit P-5, Cost Analysis: PB 2022 Army		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 80	**P-1 Line Item Number / Title:** 0605G02510 / Test Equipment Modernization (TEMOD)	**Item Number / Title [DODIC]:** G02519 / GENERAL PURPOSE TEST EQUIPMENT (GPETE)
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 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 Total		
	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	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	-	-	-	-	-	-	-	-	-	-	-	***0.080***	-	-	-	-	-	***0.080***
Logistics Cost																		
Recurring Cost																		
Technical and Logistics Data/ Services	-	-	-	-	-	-	-	-	-	-	-	1.408	-	-	-	-	-	1.408
Technical Publications	-	-	-	-	-	-	-	-	-	-	-	0.110	-	-	-	-	-	0.110
Subtotal: Recurring Cost	-	-	-	-	-	-	-	-	-	-	-	*1.518*	-	-	-	-	-	*1.518*
Subtotal: Logistics Cost	-	-	-	-	-	-	-	-	-	-	-	***1.518***	-	-	-	-	-	***1.518***
Support - Initial Spares and Repair Parts Cost																		
Initial Spares and Repair Parts	-	-	-	-	-	-	-	-	-	-	-	0.030	-	-	-	-	-	0.030
Subtotal: Support - Initial Spares and Repair Parts Cost	-	-	-	-	-	-	-	-	-	-	-	***0.030***	-	-	-	-	-	***0.030***
Support - Production Engineering Cost																		
Production Engineering	-	-	-	-	-	-	-	-	-	-	-	1.400	-	-	-	-	-	1.400
Subtotal: Support - Production Engineering Cost	-	-	-	-	-	-	-	-	-	-	-	***1.400***	-	-	-	-	-	***1.400***
Support - Quality Assurance Cost																		
Quality Assurance	-	-	-	-	-	-	-	-	-	-	-	0.102	-	-	-	-	-	0.102
Subtotal: Support - Quality Assurance Cost	-	-	-	-	-	-	-	-	-	-	-	***0.102***	-	-	-	-	-	***0.102***
Support - System Technical Support (STS) Cost																		
System Technical Support (STS)	-	-	-	-	-	-	-	-	-	-	-	1.005	-	-	-	-	-	1.005
Subtotal: Support - System Technical Support (STS) Cost	-	-	-	-	-	-	-	-	-	-	-	***1.005***	-	-	-	-	-	***1.005***
Support - System Test and Evaluation Cost																		
Test and Evaluation Support	-	-	-	-	-	-	-	-	-	-	-	0.100	-	-	-	-	-	0.100
Subtotal: Support - System Test and Evaluation Cost	-	-	-	-	-	-	-	-	-	-	-	***0.100***	-	-	-	-	-	***0.100***
Gross/Weapon System Cost	-	-	-	-	-	-	-	-	-	**45.045**	**375**	**16.892**	-	-	-	**45.045**	**375**	**16.892**

Exhibit P-5, Cost Analysis: PB 2022 Army		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 80	**P-1 Line Item Number / Title:** 0605G02510 / Test Equipment Modernization (TEMOD)	**Item Number / Title [DODIC]:** G02519 / GENERAL PURPOSE TEST EQUIPMENT (GPETE)
ID Code (A=Service Ready, B=Not Service Ready) : A	**MDAP/MAIS Code:**	

Secondary Distribution		FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Army	Quantity	-	-	163	-	163
	Total Obligation Authority	-	-	7.320	-	7.320
ANG	Quantity	-	-	138	-	138
	Total Obligation Authority	-	-	6.231	-	6.231
AR	Quantity	-	-	74	-	74
	Total Obligation Authority	-	-	3.341	-	3.341
Total: Secondary Distribution	**Quantity**	**-**	**-**	**375**	**-**	**375**
	Total Obligation Authority	**-**	**-**	**16.892**	**-**	**16.892**

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2022 Army		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 80	P-1 Line Item Number / Title: 0605G02510 / Test Equipment Modernization (TEMOD)	Item Number / Title [DODIC]: G02519 / GENERAL PURPOSE TEST EQUIPMENT (GPETE)

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
TS-4544 Telecommunication Systems Test Set(†)		2022	Viavi Solutions, Inc. / Germantown, MD	C / FFP	ACC-New Jersey	Aug 2022	Dec 2022	207	42.435	Y		
TS-4558 Optical Time Domain Reflectometer		2022	Kitco Fiberoptics / Virginia Beach, VA	C / FFP	ACC-Redstone	Sep 2022	Jan 2023	148	22.655	Y		
CM-523 Spectrum Analyzer		2022	TBS(2) / TBD	C / FFP	ACC-Redstone	Mar 2022	Jun 2022	20	22.650	Y		

(†) indicates the presence of a P-21

Exhibit P-21, Production Schedule: PB 2022 Army		**Date:** May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 80	**P-1 Line Item Number / Title:** 0605G02510 / Test Equipment Modernization (TEMOD)	**Item Number / Title [DODIC]:** G02519 / GENERAL PURPOSE TEST EQUIPMENT (GPETE)

Cost Elements (Units in Each)							Fiscal Year 2022												Fiscal Year 2023												BALANCE
							Calendar Year 2022												Calendar Year 2023												
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2021	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	
TS-4544 Telecommunication Systems Test Set																															
	1	2022	ARMY	207	0	207											A -	-	-	-	20	20	20	20	20	20	20	9			58
							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 2022 Army		**Date:** May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 80	**P-1 Line Item Number / Title:** 0605G02510 / Test Equipment Modernization (TEMOD)	**Item Number / Title [DODIC]:** G02519 / GENERAL PURPOSE TEST EQUIPMENT (GPETE)

MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Month)			Procurement Leadtime (Months)							
					Initial				Reorder			
		MSR For 2022	1-8-5 For 2022	MAX For 2022	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	Viavi Solutions, Inc. - Germantown, MD	1	95	475	0	8	4	12	0	10	5	15

Remarks:
These items are being procured by other activities from the same production line; therefore, production rates deviating from 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-40, Budget Line Item Justification: PB 2022 Army	Date: May 2021
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 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	2,672.885	27.877	17.129	-	-	-	-	-	-	-	-	-
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	2,672.885	27.877	17.129	-	-	-	-	-	-	-	-	-
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**2,672.885**	**27.877**	**17.129**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
(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 REF is the Army's Quick Reaction Capability (QRC) with the ability to acquire, integrate and sustain Commercial-Off-The Shelf (COTS), Government Off-The-Shelf (GOTS), Non-Developmental Item (NDI), and Non-Standard Equipment (NSE) solutions to meet urgent combat requirements for globally employed forces. It inserts selected future force technologies, capabilities, and surrogate materiel solutions into deployed, deploying, select-prepared to deploy, and transformational forces for operational evaluation, assessment, and evolutionary development. The REF assesses the provided capabilities to improve future solutions to inform materiel development for the future Army capability requirements and to potentially transition the capability to an Army acquisition program.

The Rapid Equipping Force (REF) supports Combatant Command (COCOMs)/Army Service Component Command (ASCCs) based on emerging rapid equipment requirements. The REF is an enduring organization (Base funded) per Memorandum, Under Secretary of the Army, 30 Jan 2014, subject: Implementation Plan for Stabilization of the Rapid Equipping Force (REF).

The REF bridges the gap between the Army's traditional acquisition process and immediate equipping needs. The REF pursues tangible solutions that can be equipped rapidly with a goal of 180 days. The REF focuses on finding immediate and effective game-changing capabilities to increase U.S. Army Force readiness, effectiveness, protection, and lethality in any operational environment. The REF 10-Liner process provides the ability to react quickly to an ever-changing enemy who changes in days and months, not years in a complex world. The REF coordinates with the COCOMs/ASCCs in theater to fully understand their urgent needs, for which the REF acquisition capability may identify, procure, deliver, and sustain solutions to the deployed units. Although the REF works directly with Operational Commanders at all levels, it focuses on Brigade level and below to equip solutions to identified capability gaps.

The Army Acquisition Executive designated Program Executive Office (PEO) Soldier as the Milestone Decision Authority (MDA) to institutionalize the acquisition authorities in support of the REF and to provide proper acquisition oversight while enhancing visibility of these efforts. The MDA will ensure flexibility and speed focused on the needs of Soldiers serviced by the dedicated REF Program Management Office (PMO). This establishes a formal acquisition reporting chain that leverages existing reporting venues to ensure appropriate Assistant Secretary of the Army /Acquisition Logistics/Technology (ASA (ALT)) visibility, oversight, and direction.

Secondary Distribution		FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026
Army	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	27.877	17.129	-	-	-	-	-	-	-

Exhibit P-40, Budget Line Item Justification: PB 2022 Army		Date: May 2021
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 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026
Total: Secondary Distribution	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	27.877	17.129	-	-	-	-	-	-	-

Justification:
M80101 has no FY2022 funding request due to closure and discontinuation at the end of FY21, dated 30 Sep 2020, subject: HQDA EXORD 233-20 Discontinuation of the Rapid Equipping Force.

Exhibit P-40, Budget Line Item Justification: PB 2022 Army	Date: May 2021
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 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	2,055.160	88.974	89.251	86.930	-	86.930	-	-	-	-	-	-
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	2,055.160	88.974	89.251	86.930	-	86.930	-	-	-	-	-	-
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**2,055.160**	**88.974**	**89.251**	**86.930**	**-**	**86.930**	**-**	**-**	**-**	**-**	**-**	**-**
(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:

Physical Security Systems (MA0780) protect vulnerable critical assets and infrastructure from determined, highly motivated and skilled intruders. Physical Security Systems include the Standard Intrusion Detection Systems (SIDS) (MA0781), the Commercial Intrusion Detection System (CIDS) (MA0782) and Other Physical Security Measures Equipment (MA0783). SIDS includes the Integrated Commercial Intrusion Detection System (ICIDS) program and procurement of Intrusion Detection System (IDS) equipment in support of MILCON projects. Other Physical Security Measures Equipment includes the Automated Installation Entry (AIE) program and other efforts consistent with Office of Provost Marshal General (OPMG) security measures.

The Physical Security program's goal is to safeguard Army installations, stand-alone facilities, activities, operations, personnel and critical assets from sabotage, espionage,criminal, terrorists and insider threats. The Physical Security program reduces risks and vulnerabilities by providing Commanders with the appropriate levels of protection through the use of technology to ensure Army readiness to generate, project, and sustain Army forces.

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. Note, ICIDS cost per site varies by number (20 to 1000) and type (i.e., bunker, bio lab, arms room, chemical weapons storage, SCIF) of security zones.

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. This 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. ARNG fields sites by state with in-state vendors performing the work. Note, CIDS cost per state (ARNG) and site varies by number (1 to 500) and type (i.e., bunker, arms room, weapons storage, SCIF) of security zones.

Exhibit P-40, Budget Line Item Justification: PB 2022 Army		Date: May 2021
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 DODM 5200.08, VOL III direction to field electronic physical access control systems to accomplish initial vetting of visitors and continuous vetting for all personnel entering Army installations AIE satisfies the OPMG's Automated Access Control Standards. Note, AIE cost per site varies by number (1 to 60) and type (i.e., handheld only, self service pedestal, RFID enabled, Facial Recognition enabled) of inbound lanes and number (1 to 3) of Visitor Control Centers.

Note: These are non-standard programs and do not have AAO's.

Secondary Distribution		FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026
Army	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	88.974	89.251	86.930	-	86.930	-	-	-	-
Total: Secondary Distribution	**Quantity**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
	Total Obligation Authority	**88.974**	**89.251**	**86.930**	**-**	**86.930**	**-**	**-**	**-**	**-**

Exhibit P-40, Budget Line Item Justification: PB 2022 Army	Date: May 2021
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 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 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	A		- / 357.378	- / 29.973	- / 23.265	- / 21.967	- / -	- / 21.967
P-5	MA0782 / Commercial Intrusion Detection Systems (IDS)	P-5a			- / 277.232	- / 13.393	- / 9.356	- / 9.600	- / -	- / 9.600
P-5	MA0783 / Other Physical Security Measures Equip	P-5a			- / 1,420.550	- / 45.608	- / 56.630	- / 55.363	- / -	- / 55.363
P-40	**Total Gross/Weapon System Cost**				**- / 2,055.160**	**- / 88.974**	**- / 89.251**	**- / 86.930**	**- / -**	**- / 86.930**

*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:
FY2022 Base procurement funding in the amount of $86.930 million provides funding for SIDS (MA0781) in the amount of $21.967 million, CIDS (MA0782) in the amount of $9.600 million and Other Physical Security Measures Equipment in the amount of $55.363 million:

-$21.967 million (MA0781) base procurement dollars provides installation of ICIDS at eight (8) sites: Sierra AD, CA - 36 zones/3 SCIF; Fort Leonard Wood, MO - 550 zones/3 SCIFs; Aberdeen PG, MD - 510 zones/43 SCIFs; MOTCO, CA - 32 zones/1 SCIF; Scranton AAP, PA - 3 zones/1 SCIF; Redstone Arsenal, AL - 324 zones/39 SCIFs; Dugway PG, UT - 129 zones/2 SCIFs; Letterkenny AD, PA - 175 zones; and any remaining Windows 10 conversions for non-compliant ICIDS. Funding supports a balanced investment strategy for the Army approved force structure and requirements. All ICIDS quantities and funding are for Active Components. $3.255 million of this requirement supports the enduring requirement for Operation Spartan Shield and $0.165 million of this requirement supports the enduring requirement for Guantanamo Bay.

-$9.600 million for CIDS (MA0782) base procurement dollars supports procuring four (4) states (FL - 119 zones/2 SCIFs, MN - 123 zones/3 SCIFs, TN - 149 zones/1SCIF, WI - 119 zones/2 SCIFs) 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 sites. 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 are for Active, Reserve and ARNG Components.

-$55.363 million (MA0783) base procurement dollars procures AIE $43.061 million for AIE systems at 24 AIE-4 Pure Fleet sites: JSMC Lima, OH; Arlington National Cemetery, VA; Iowa AAP, IA; Yakima TC, WA; FT Jackson, SC; FT Pickett, VA; FT Indiantown Gap, PA; Lake City AAP, UT; Pueblo CD, CO; McAlester AAP; OK; Rock Island Arsenal, IL; Letterkenny AD, PA; Arlington Hall, VA; Anniston AD, AL; Camp Roberts, CA; FT Irwin, CA; FT Leavenworth, KS; FT Lee, VA; FT Sill, OK; Holston AAP, TN; MOTCO, CA; Radford AAP; VA, Rivanna Station, VA; and first AIE Next site as prioritized by OPMG. AIE systems include new AIE-4 sites and sites Pure Fleeted from AIE-2 to AIE-4 software to protect Army force projection platforms and high priority Installations. The system complies with DODI 5200.08, VOL III for Access Control Standards including identity validation and vetting to determine fitness of an individual requesting and/or requiring access to Installations. AIE satisfies OPMG's Automated Access Control Standards. All quantities and funding are for Active, Reserve and ARNG Components. Access Control Point (ACP) Physical Security Equipment Modernization $12.212 million procures ACP equipment for 10 Installations: USAG Hawaii, FT Wainwright, FT Drum, and Carlisle Barracks, and AIE Site Preparation at multiple remaining Installations. Defense Biometric Identification System (DBIDS) $0.493 million procures DBIDS 5 at sixteen (16) installations located throughout Europe; Germany, Italy, Belgium, and the Netherlands, for total of 102 Access Control Points (ACPs) and 22 Enhance Pedestrian Security Gates (ESPG). DBIDS 5 is to be used by USEUCOM components to electronically authenticate the 4M monthly access requests and 95K visitors at over 154 access control points at 85 U.S. military installations overseas. $1.687 million of this requirement supports the enduring requirement for Operation Spartan Shield.

Exhibit P-5, Cost Analysis: PB 2022 Army		Date: May 2021
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 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	357.378	29.973	23.265	21.967	-	21.967
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	357.378	29.973	23.265	21.967	-	21.967
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**357.378**	**29.973**	**23.265**	**21.967**	**-**	**21.967**
(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)*	-	-	-	2,745.875	-	2,745.875

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

Cost Elements	Prior Years			FY 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 Total		
	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	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(†)	4,970.364	11	54.674	8,553.000	3	25.659	3,180.667	3	9.542	-	-	-	-	-	-	-	-	-
Program Management Support*	-	-	8.470	-	-	1.441	-	-	1.487	-	-	1.763	-	-	-	-	-	1.763
SETA Contract Support*	-	-	5.870	-	-	1.270	-	-	1.389	-	-	1.431	-	-	-	-	-	1.431
Prime Contractor PM	-	-	6.935	-	-	1.603	-	-	1.651	-	-	1.701	-	-	-	-	-	1.701
IDS Procurement in Support of MILCON Projects	-	-	-	-	-	-	-	-	9.196	-	-	-	-	-	-	-	-	-
Sierra Army Depot, CA (FY22)	-	-	-	-	-	-	-	-	-	377.000	1	0.377	-	-	-	377.000	1	0.377
Aberdeen Proving Grounds, MD (FY22)	-	-	-	-	-	-	-	-	-	5,457.000	1	5.457	-	-	-	5,457.000	1	5.457
Fort Leonard Wood, MO (FY22)	-	-	-	-	-	-	-	-	-	4,581.000	1	4.581	-	-	-	4,581.000	1	4.581
MOTCO, CA (FY22)	-	-	-	-	-	-	-	-	-	293.000	1	0.293	-	-	-	293.000	1	0.293
Scranton Army Ammunition Plant, PA (FY22)	-	-	-	-	-	-	-	-	-	293.000	1	0.293	-	-	-	293.000	1	0.293
Redstone Arsenal, AL (FY22)	-	-	-	-	-	-	-	-	-	3,621.000	1	3.621	-	-	-	3,621.000	1	3.621

Exhibit P-5, Cost Analysis: PB 2022 Army		Date: May 2021
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:**	

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

Cost Elements	Prior Years			FY 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 Total		
	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)
Dugway proving Ground, UT (FY22)	-	-	-	-	-	-	-	-	-	1,114.000	1	1.114	-	-	-	1,114.000	1	1.114
Letterkenny Army Depot, PA (FY22)	-	-	-	-	-	-	-	-	-	1,336.000	1	1.336	-	-	-	1,336.000	1	1.336
Subtotal: Recurring Cost	-	-	*75.949*	-	-	*29.973*	-	-	*23.265*	-	-	*21.967*	-	-	-	-	-	*21.967*
Subtotal: Flyaway Cost	**-**	**-**	***75.949***	**-**	**-**	***29.973***	**-**	**-**	***23.265***	**-**	**-**	***21.967***	**-**	**-**	**-**	**-**	**-**	***21.967***
Support - Data Cost																		
Support Data Data	-	-	281.429	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Support - Data Cost	**-**	**-**	***281.429***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Gross/Weapon System Cost	**-**	**-**	**357.378**	**-**	**-**	**29.973**	**-**	**-**	**23.265**	**2,745.875**	**-**	**21.967**	**-**	**-**	**-**	**2,745.875**	**-**	**21.967**

Remarks:
* ICIDS Program Management and SETA support reflect the non-standard program which installs physical intrusion detection systems in Army Installation facilities. This requires higher than normal oversight of prime contractor quality control, site survey, site unique design, training, testing, and first year contractor logistics support.

Secondary Distribution		FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Army	Quantity	-	-	-	-	-
	Total Obligation Authority	29.973	23.265	21.967	-	21.967
Total: Secondary Distribution	**Quantity**	**-**	**-**	**-**	**-**	**-**
	Total Obligation Authority	**29.973**	**23.265**	**21.967**	**-**	**21.967**

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2022 Army		**Date:** May 2021
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		2020	Minuteman Security Solutions / New Bern, NC	Option / IDIQ	Ft. Belvoir, VA	Mar 2020	Jun 2021	3	8,553.000	Y		
Hardware		2021	Minuteman Security Solutions / New Bern, NC	Option / IDIQ	Ft. Belvoir, VA	Mar 2021	Jul 2022	3	3,180.667	Y		

Remarks:
ICIDS Installations take approximately 12 to 18 months to complete from award of Delivery Order, extremely large installations can take up to 30 months to complete.

ICIDS cost per site varies by number (20 to 1000) and type (i.e., bunker, bio lab, arms room, chemical weapons storage, SCIF) of security zones.

Minuteman Security Solutions will field seven (7) of eight (8) FY22 sites under their last Option Year. The new TBD contractor will field one (1) site as the first site on the new follow-on production contract.

Exhibit P-5, Cost Analysis: PB 2022 Army		Date: May 2021
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 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	277.232	13.393	9.356	9.600	-	9.600
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	277.232	13.393	9.356	9.600	-	9.600
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**277.232**	**13.393**	**9.356**	**9.600**	**-**	**9.600**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)						
Initial Spares *($ in Millions)*	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Thousands)*	-	-	-	-	-	-

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

Cost Elements	Prior Years			FY 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 Total		
	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)
Flyaway Cost																		
Recurring Cost																		
Hardware(†)	1,811.974	153	277.232	2,232.167	6	13.393	1,559.333	6	9.356	-	-	-	-	-	-	-	-	-
Florida Sites	-	-	-	-	-	-	-	-	-	2,280.000	1	2.280	-	-	-	2,280.000	1	2.280
Michigan Sites	-	-	-	-	-	-	-	-	-	2,435.000	1	2.435	-	-	-	2,435.000	1	2.435
Tennessee Sites	-	-	-	-	-	-	-	-	-	2,720.000	1	2.720	-	-	-	2,720.000	1	2.720
Winsconsin	-	-	-	-	-	-	-	-	-	2,165.000	1	2.165	-	-	-	2,165.000	1	2.165
Subtotal: Recurring Cost	-	-	*277.232*	-	-	*13.393*	-	-	*9.356*	-	-	*9.600*	-	-	-	-	-	*9.600*
Subtotal: Flyaway Cost	**-**	**-**	***277.232***	**-**	**-**	***13.393***	**-**	**-**	***9.356***	**-**	**-**	***9.600***	**-**	**-**	**-**	**-**	**-**	***9.600***
Gross/Weapon System Cost	**-**	**-**	**277.232**	**-**	**-**	**13.393**	**-**	**-**	**9.356**	**-**	**-**	**9.600**	**-**	**-**	**-**	**-**	**-**	**9.600**

Remarks:
CIDS cost per state (ARNG) and site varies by number (1 to 500) and type (i.e., bunker, arms room, weapons storage, SCIF) of security zones.

FY22 supports procuring four (4) states (FL - 119 zones/2 SCIFs, MN - 123 zones/3 SCIFs, TN - 149 zones/1 SCIF, WI - 119 zones/2 SCIFs).

Secondary Distribution		FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Army	Quantity	-	-	-	-	-
	Total Obligation Authority	13.393	9.356	9.600	-	9.600

Exhibit P-5, Cost Analysis: PB 2022 Army		Date: May 2021
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:**	

Secondary Distribution		FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Total: Secondary Distribution	Quantity	-	-	-	-	-
	Total Obligation Authority	13.393	9.356	9.600	-	9.600

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2022 Army		**Date:** May 2021
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		2020	TBD / TBD	C / Various	Various	Mar 2020	Apr 2020	6	2,232.167	Y		
Hardware		2021	TBD / TBD	C / Various	Various	Mar 2021	Apr 2021	6	1,559.333	Y		
Hardware		2022	TBD / TBD	C / Various	Various	Mar 2022	Apr 2022	0	0.000	Y		

Remarks:
Procurement items are Commercial Off The Shelf (COTS) from various vendors TBD.

ARNG fields sites by state with in-state vendors performing the work.

CIDS cost per state (ARNG) and site varies by number (1 to 500) and type (i.e., bunker, arms room, weapons storage, SCIF) of security zones.

FY22 supports procuring four (4) states (FL - 119 zones/2 SCIFs, MN - 123 zones/3 SCIFs, TN - 149 zones/1 SCIF, WI - 119 zones/2 SCIFs).

Exhibit P-5, Cost Analysis: PB 2022 Army		Date: May 2021
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 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	1,420.550	45.608	56.630	55.363	-	55.363
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	1,420.550	45.608	56.630	55.363	-	55.363
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**1,420.550**	**45.608**	**56.630**	**55.363**	**-**	**55.363**
(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)*	-	-	-	2,306.792	-	2,306.792

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

Cost Elements	Prior Years			FY 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 Total		
	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	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(†)	32,871.810	42	1,380.616	2,368.625	16	37.898	1,216.840	25	30.421	-	-	-	-	-	-	-	-	-
AIE Program Management Support*	-	-	12.874	-	-	3.265	-	-	3.134	-	-	2.798	-	-	-	-	-	2.798
AIE SETA Contract Support*	-	-	9.062	-	-	3.185	-	-	2.479	-	-	2.385	-	-	-	-	-	2.385
ACPEP	-	-	7.114	-	-	1.260	-	-	1.119	-	-	-	-	-	-	-	-	-
Advantor camera upgrade	-	-	6.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TBD - Technology Refreshes	-	-	-	-	-	-	-	-	-	-	-	15.505	-	-	-	-	-	15.505
NCO Physical Security Trainig Materiels	-	-	-	-	-	-	-	-	0.050	-	-	-	-	-	-	-	-	-
USAREUR DBIDS Hardware	197.600	5	0.988	-	-	-	30.875	16	0.494	30.813	16	0.493	-	-	-	30.813	16	0.493
ACP Modernization and AIE Site Prepartion	-	-	3.896	-	-	-	-	-	18.933	1,221.200	10	12.212	-	-	-	1,221.200	10	12.212
AIE Sites (FY22 and forward formerly called "AIE Hardware")(†)	-	-	-	-	-	-	-	-	-	915.417	24	21.970	-	-	-	915.417	24	21.970
Subtotal: Recurring Cost	-	-	*1,420.550*	-	-	*45.608*	-	-	*56.630*	-	-	*55.363*	-	-	-	-	-	*55.363*
Subtotal: Flyaway Cost	**-**	**-**	***1,420.550***	**-**	**-**	***45.608***	**-**	**-**	***56.630***	**-**	**-**	***55.363***	**-**	**-**	**-**	**-**	**-**	***55.363***

Exhibit P-5, Cost Analysis: PB 2022 Army		Date: May 2021
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:**	

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

Cost Elements	Prior Years			FY 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 Total		
	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)
Gross/Weapon System Cost	-	-	1,420.550	-	-	45.608	-	-	56.630	2,306.792	-	55.363	-	-	-	2,306.792	-	55.363

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

Cost Element Breakout	Prior Years			FY 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 Total		
	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)
AIE Sites (FY22 and forward formerly called "AIE Hardware")	-	-	-	-	-	-	-	-	-	915.417	24	21.970	-	-	-	915.417	24	21.970
JSMC Lima, OH	-	-	-	-	-	-	-	-	-	634.000	1	0.634	-	-	-	634.000	1	0.634
Arlington National Cemetary, VA	-	-	-	-	-	-	-	-	-	875.000	1	0.875	-	-	-	875.000	1	0.875
Iowa AAP, IA	-	-	-	-	-	-	-	-	-	791.000	1	0.791	-	-	-	791.000	1	0.791
Yakima TC, WA	-	-	-	-	-	-	-	-	-	586.000	1	0.586	-	-	-	586.000	1	0.586
Fort Jackson	-	-	-	-	-	-	-	-	-	1,398.000	1	1.398	-	-	-	1,398.000	1	1.398
Fort Pickett, VA	-	-	-	-	-	-	-	-	-	711.000	1	0.711	-	-	-	711.000	1	0.711
Fort Indiantown Gap, PA	-	-	-	-	-	-	-	-	-	823.000	1	0.823	-	-	-	823.000	1	0.823
Lake City AAP, UT	-	-	-	-	-	-	-	-	-	943.000	1	0.943	-	-	-	943.000	1	0.943
Pueblo CD, CO	-	-	-	-	-	-	-	-	-	950.000	1	0.950	-	-	-	950.000	1	0.950
McAlester AAP, OK	-	-	-	-	-	-	-	-	-	923.000	1	0.923	-	-	-	923.000	1	0.923
Rock Island Arsenal	-	-	-	-	-	-	-	-	-	943.000	1	0.943	-	-	-	943.000	1	0.943
Letterkenny AD, PA	-	-	-	-	-	-	-	-	-	941.000	1	0.941	-	-	-	941.000	1	0.941
Arlington Hall, VA	-	-	-	-	-	-	-	-	-	1,029.000	1	1.029	-	-	-	1,029.000	1	1.029
Anniston AD, AL	-	-	-	-	-	-	-	-	-	525.000	1	0.525	-	-	-	525.000	1	0.525
Camp Roberts, CA	-	-	-	-	-	-	-	-	-	450.000	1	0.450	-	-	-	450.000	1	0.450
Fort Irwin, CA	-	-	-	-	-	-	-	-	-	540.000	1	0.540	-	-	-	540.000	1	0.540
Fort Leavenworth, KS	-	-	-	-	-	-	-	-	-	525.000	1	0.525	-	-	-	525.000	1	0.525
Fort Lee	-	-	-	-	-	-	-	-	-	600.000	1	0.600	-	-	-	600.000	1	0.600
Fort Sill, OK	-	-	-	-	-	-	-	-	-	600.000	1	0.600	-	-	-	600.000	1	0.600
Holston AAP, TN	-	-	-	-	-	-	-	-	-	488.000	1	0.488	-	-	-	488.000	1	0.488
MOTCO, CA	-	-	-	-	-	-	-	-	-	488.000	1	0.488	-	-	-	488.000	1	0.488
Radford AAP, VA	-	-	-	-	-	-	-	-	-	2,010.000	1	2.010	-	-	-	2,010.000	1	2.010
Rivanna Station, VA	-	-	-	-	-	-	-	-	-	450.000	1	0.450	-	-	-	450.000	1	0.450

Exhibit P-5, Cost Analysis: PB 2022 Army		Date: May 2021
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:**	

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

Cost Element Breakout	Prior Years			FY 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 Total		
	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)
TBD - AIE - Next Site	-	-	-	-	-	-	-	-	-	3,747.000	1	3.747	-	-	-	3,747.000	1	3.747

Remarks:
AIE cost per site varies by number (1 to 60) and type (i.e., handheld only, self service pedestal, RFID enabled, Facial Recognition enabled) of inbound lanes and number (1 to 3) of Visitor Control Centers.

* AIE Program Management and SETA support reflect the non-standard program which installs electronic physical access control systems at Army Installation gates. This requires higher than normal oversight of prime contractor quality control, site survey, site unique design, training, testing, and first year contractor logistics support.

Secondary Distribution		FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Army	Quantity	-	-	-	-	-
	Total Obligation Authority	45.608	56.630	55.363	-	55.363
Total: Secondary Distribution	**Quantity**	**-**	**-**	**-**	**-**	**-**
	Total Obligation Authority	**45.608**	**56.630**	**55.363**	**-**	**55.363**

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2022 Army		**Date:** May 2021
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		2020	Leidos Inc. / Reston, VA	Option / IDIQ	Ft. Belvoir, VA	Oct 2019	Mar 2020	16	2,368.625	Y		
AIE Hardware		2021	Leidos Inc. / Reston, VA	Option / IDIQ	Ft. Belvoir, VA	Oct 2020	Jan 2021	25	1,216.840	Y		
AIE Sites (FY22 and forward formerly called "AIE Hardware")		2022	TBD / TBD	C / IDIQ	Ft. Belvoir, VA	Oct 2021	Dec 2022	1	915.417	N		
AIE Sites (FY22 and forward formerly called "AIE Hardware")		2022	Leidos Inc. / Reston, VA	Option / IDIQ	Ft. Belvoir, VA	Oct 2021	Feb 2022	23	915.417	Y		

Remarks:
AIE cost per site varies by number (1 to 60) and type (i.e., handheld only, self service pedestal, RFID enabled, Facial Recognition enabled) of inbound lanes and number (1 to 3) of Visitor Control Centers.

Leidos will field 23 of 24 FY22 sites under their last Option Year. The new TBD contractor will field one (1) site after Base Contract Award.

Exhibit P-40, Budget Line Item Justification: PB 2022 Army	Date: May 2021
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 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	573.635	15.340	15.650	27.823	-	27.823	-	-	-	-	-	-
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	573.635	15.340	15.650	27.823	-	27.823	-	-	-	-	-	-
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**573.635**	**15.340**	**15.650**	**27.823**	**-**	**27.823**	**-**	**-**	**-**	**-**	**-**	**-**
(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. 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.

US Army Criminal Investigation Command (USACIDC) Funds are required to purchase life cycle replacement and the modernization of instrumentation and equipment of the USACIDC Defense Forensics Science Center (DFSC). Funds are also used for the procurement of lifecycle replacement of USACIDC's servers, video teleconference equipment, and related information technology/audio visual equipment (IT/AV), which is generally purchased in combination for configuration and operability purposes. These items are on a 5 year life cycle. As this equipment reaches end of life, it become unreliable and unable to support upgrades, which will lead to network vulnerability and reduced performance. Equipment life cycle replacement ensures systems are maintained at proper levels.

Secondary Distribution		FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026
Army	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	15.340	15.650	27.823	-	27.823	-	-	-	-
Total: Secondary Distribution	**Quantity**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
	Total Obligation Authority	**15.340**	**15.650**	**27.823**	**-**	**27.823**	**-**	**-**	**-**	**-**

Exhibit P-40, Budget Line Item Justification: PB 2022 Army	Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 90: Other Support Equipment	**P-1 Line Item Number / Title:** 0312MB7000 / Base Level Common Equipment

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

Line Item MDAP/MAIS Code: N/A

Exhibits Schedule					Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/ MAIS Code	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)
P-5	MB7000 / Base Level Common Equipment				- / 573.635	- / 15.340	- / 15.650	- / 27.823	- / -	- / 27.823
P-40	**Total Gross/Weapon System Cost**				**- / 573.635**	**- / 15.340**	**- / 15.650**	**- / 27.823**	**- / -**	**- / 27.823**

*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 2022 Base procurement dollars in the amount of $26.824 million supports IMCOM Installation requirements for new investment items or replacements for existing equipment that is over-aged, obsolete, or beyond economical repair. Installation Management Commands existing BCE fleet is fifteen to forty years old and exceeds overall programmed life expectancy and Army set Maintenance Expenditure Limits (MEL). This program enables the Army to replace equipment after years of continual heavy use and where major vehicle components are no longer available due to discontinuation by the manufacturer. Continued maintenance is increasingly cost prohibitive and competes with other critical Base Operations Service programs for resources. When new procurement is not possible, garrisons turn to leasing equipment at an extremely high cost, over 45% more expensive over the life of the vehicle, to meet mission requirements.

US Army Criminal Investigation Command (USACIDC) funds will be used to obtain:

Item 1: $0.500M: DFSC's Laboratory Modernization (LAB MOD) program covers the Life Cycle Replacement and the modernization of all Instrumentation and Equipment to ensure our facility remains a world class forensic provider supporting all Military Criminal Investigative Organizations (MCIOs) of the Department of Defense pursuing the successful resolution of reported criminal activity. Recent national and international focus on the forensics community highlights the continuing need to strengthen and advance our procedures, protocols, and techniques while employing the most advance instruments available. One example of the instrumentation and equipment would be the Liquid Chromatograph Tandem Mass Spectrometer (LCMSMS) system which is capable of separating mixtures using a liquid chromatograph. The LCMSMS system is an extremely powerful tool that can separate and aid with the positive identification and differentiation of very closely related substances, such as positional isomers of synthetic cannabinoids, cathinones, and other designer drugs, controlled, and non-controlled drugs of abuse.

If the lifecycle replacement is not funded, the USACIDC assumes unacceptable risk of equipment failure. Upon equipment failure, all evidence testing associated with this instrumentation would cease thereby impacting the investigative and judicial communities' ability to complete criminal investigations and to prosecute known criminals.

Item 2: Information Technology Servers Lifecycle replacement ($0.499M): USACIDC requires lifecycle replacement of all existing servers providing the virtual computing and storage environments for the Military Police and CID Law Enforcement mission systems and networking equipment for the continued development of Continuity Of Operations Planning and Disaster Recovery environments, in accordance with applicable Defense Information Systems Agency and National Institute of Standards and Technology guidelines and standards. Additionally, as major legacy components of the VTC/AV system reach end-of-life, they are identified as a network vulnerability. In order to meet the Army's compliance requirements VTC and A/V equipment currently in use must be listed on the Department of Defense (DoD) approved products list (APL).

Exhibit P-5, Cost Analysis: PB 2022 Army		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 90	**P-1 Line Item Number / Title:** 0312MB7000 / Base Level Common Equipment	**Item Number / Title [DODIC]:** MB7000 / Base Level Common Equipment
ID Code (A=Service Ready, B=Not Service Ready) :	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	573.635	15.340	15.650	27.823	-	27.823
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	573.635	15.340	15.650	27.823	-	27.823
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**573.635**	**15.340**	**15.650**	**27.823**	**-**	**27.823**
(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 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 Total		
	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)
Flyaway Cost																		
Recurring Cost																		
Ammunition Cranes	9,750.000	2	19.500	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Rough Terrain Forklifts	430.000	2	0.860	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Loader Transport	402.000	1	0.402	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BCE Equipment	550,775.000	1	550.775	15,340.000	1	15.340	14,823.000	1	14.823	26,835.000	1	26.835	-	-	-	26,835.000	1	26.835
Crane Truck Mounted	352.500	2	0.705	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CID Equipment	1,393.000	1	1.393	-	-	-	-	-	0.827	-	-	0.988	-	-	-	-	-	0.988
Subtotal: Recurring Cost	-	-	*573.635*	-	-	*15.340*	-	-	*15.650*	-	-	*27.823*	-	-	-	-	-	*27.823*
Subtotal: Flyaway Cost	**-**	**-**	***573.635***	**-**	**-**	***15.340***	**-**	**-**	***15.650***	**-**	**-**	***27.823***	**-**	**-**	**-**	**-**	**-**	***27.823***
Gross/Weapon System Cost	**-**	**-**	**573.635**	**-**	**-**	**15.340**	**-**	**-**	**15.650**	**-**	**-**	**27.823**	**-**	**-**	**-**	**-**	**-**	**27.823**

Remarks:
Funding is COTS/GOTS.

Secondary Distribution		FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Army	Quantity	-	-	-	-	-
	Total Obligation Authority	15.340	15.650	27.823	-	27.823
Total:	**Quantity**	**-**	**-**	**-**	**-**	**-**

Exhibit P-5, Cost Analysis: PB 2022 Army		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 90	**P-1 Line Item Number / Title:** 0312MB7000 / Base Level Common Equipment	**Item Number / Title [DODIC]:** MB7000 / Base Level Common Equipment
ID Code (A=Service Ready, B=Not Service Ready) :	**MDAP/MAIS Code:**	

Secondary Distribution		FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Secondary Distribution	Total Obligation Authority	15.340	15.650	27.823	-	27.823

Exhibit P-40, Budget Line Item Justification: PB 2022 Army	Date: May 2021
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 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	1,332.867	106.812	66.485	32.392	-	32.392	-	-	-	-	-	-
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	1,332.867	106.812	66.485	32.392	-	32.392	-	-	-	-	-	-
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**1,332.867**	**106.812**	**66.485**	**32.392**	**-**	**32.392**	**-**	**-**	**-**	**-**	**-**	**-**
(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)*	487.159	83.840	407.883	87.783	-	87.783	-	-	-	-	-	-

Description:

Sets, Kits, Outfit and Tools (SKOT) Modification of In-Service Equipment program funds the Metal Working and Machining Shop Set (MWMSS), which provides the capability to fabricate replacement parts; the Armament Repair Shop Set (ARSS) which provides maintenance and repair for weapons, allowing major combat systems to return to the fight rapidly; The Fire Suppression Refill System (FSRS) provides the capability to refill fire suppression systems in combat vehicles. The Refrigeration Tool Kit (RTK) is comprised of two types that will modernize legacy kits to support equipment that has refrigerant systems; the Forward Repair System (FRS) which is a mobile, forward deployed maintenance repair shop; the Shop Equipment Welding (SEW) and the Next Generation Shop Equipment Welding (NG SEW) provides state of the art welding equipment with capability to perform battlefield welding and cutting operations; the Hydraulic System Test and Repair Unit (HSTRU) is the Army's only mobile hydraulic diagnosis and repair system.

The MWMSS directly supports Soldier Lethality, NGCV and LRPF, as well as addresses GAPs 10 and 17 enabling rapid repair at the point-of-need through fabrication using additive (3D printers) and subtractive manufacturing capabilities.

This project line supports the family of Army Ship to Shore (S2S) connectors that support Dynamic Force Repositioning (DFR) by providing the Combatant, Multi-Domain Operations (MDO) and Joint All Domain Operations (JADO) Commanders with the ability to access multiple entry points via littorals and inland waterways (waterborne corridor) IOT sustain forces within an anti-access/area denial (A2/AD) bubble. The family of S2S connectors include the Maneuver Support Vessel (Light) and the Ship to Shore / Over the Shore Logistics Vessel (SSLV), which are the Army's first digital architecture vessels (with improved draft, speed, and payload) and critical modernization efforts in support of the Army's Watercraft Systems Transformation Strategy (AWSTS). S2S connectors will provide Surge, Precision and Dispersed Logistics to move and maneuver tailored forces, combat ready troops, platforms, equipment, and supply bulk fuel and water across the full spectrum of operations. S2S connectors mitigate A2/AD threats by providing access to shallow coastal waters, rivers, in narrow inland waterways in support of dispersed force elements in austere environments and where mature ports or road networks are unavailable.

In general, all Army Watercraft funding supports initiatives to enhance the seaworthiness, safety, and survivability while increasing the lethality, tactical mobility, and operational capability of the Army Mariner to preserve the Combatant Commanders requirement of "freedom of seas" access in all areas of the world particularly the littorals, to support maneuver operations in all Areas of Responsibility. All modification and services efforts are critical enablers for the success Army's Watercraft Systems Transformation Strategy (AWSTS) and continued fulfillment of the AWS Title 10 mission.

Army Watercraft Systems are categorized under Landing Craft, Towing and Terminal Operations, Ship-to-Shore Enablers and Watercraft Operations Support. Landing Craft consist of Logistic Support Vessels (LSV), Landing Craft Utility 2000 (LCU-2000), Landing Craft Mechanized 8 (LCM-8) MOD 1, and LCM-8 MOD 2 (Watercraft Operations Support) and the Maneuver Support Vessel-Light (MSV(L)). Towing and

Exhibit P-40, Budget Line Item Justification: PB 2022 Army		Date: May 2021
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		

Terminal Operations consist of Large Tug 800 (LT-800), Small Tug 900 (ST-900), and Barge Derrick Crane 115-ton (BD-115). Ship-to-Shore Enablers consist of Modular Causeway Systems (MCS) [each MCS includes Roll-On/Roll-Off Discharge Facilities (RRDF), Modular Warping Tugs (MWT), Causeway Ferry (CF), Floating Causeway (FC)].

COVID19: The COVID19 pandemic is driving significant cost increases across the shipbuilding industry (absenteeism, demand for skilled trades, safety protocols, and reliance on sub-contractor TDY). Although vaccinations could potentially mitigate some risks, the Army will continue to monitor the situation closely.

The Construction Equipment (CE) Modification of In-Service Equipment program funds system modifications and modernization initiatives across the CE portfolio, to include the High Mobility Engineer Excavator (HMEE); Engineer Rapid Airfield Construction Capability (ERACC) for Dozers, Graders, Scrapers; Family of Loaders (FOL); Skid Steer Loader (SSL); Tractor Full Tracked; Grader; Scrapers and DEUCE; and Hydraulic Excavators (HYEX). These programs serve as critical enablers in support of the National Defense Strategy and to the operational force by providing the capabilities necessary (1) general construction tasks; (2) to construct, maintain and repair airfields, runways, main supply routes, logistical facilities, roads, helipads, and ports of entry/debarkation; (3) to repair and keep open Line of Communications resulting in increased force mobility, maneuverability, deployability, sustainability; and (4) to enhance force infrastructure protection across a range of military operations. Improvements made to these systems will decrease rising sustainment costs and bridge the gap until new system procurement in future years.

The Material Handling Equipment (MHE) Modification of In-Service Equipment program funds system modifications and modernization initiatives across the MHE portfolio, to include the Rough Terrain Container Handler (RTCH); All-Terrain Lifter, Army System (ATLAS); and Light Capability Rough Terrain Forklift (LCRTF). These improvements will decrease rising sustainment costs and bridge the gap until new system procurement in future years. These programs serve as critical enablers in support of the National Defense Strategy and to the operational force by providing the capabilities necessary to (1) clear landing zones of supplies and equipment, load and unload combat vehicles and aircraft as well as moving some artillery assets, ammunition and supplies and (2) perform port opening operations, logistics movement, and unloading and loading of containers that handle break-bulk cargo at seaports, railheads, and airports. The LCRTF is the only rugged forklift in the U.S. Army's inventory which can rapidly enter, pack, and unpack ISO containers, load and unload tactical vehicles and trailers, and lift and move light equipment and cargo. The RTCH represents a key enabler during Joint Logistics Over the Shore Operations (JLOTS) and lifts, moves, and stacks 20- and 40-foot ISO freight containers. In addition, program funds support the procurement and fielding of RTCH Special Tools Kits required to meet Field Level Maintenance requirements per the current Technical Manual for the aging legacy fleet.

Modification kits provide proven capabilities to reduce logistical, environmental, 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 and environmentally responsible investment as these capabilities have a quick return on investment in sustained operations. For example: Energy Efficiency modifications to shelters reduce solar loading by 85% and cooling and heating demands in turn reducing the fuel demand by 35% to power environmental control-ROI is within 180 days; the Power distribution Micro-grid component provides auto on/off capabilities for generators based upon load demand, reducing fuel consumed by over 30%-ROI is with 150 days; and the solid waste disposal piece will provide a safe and efficient capability to dispose of waste generated in the base camp.

The Expeditionary Solid Waste Disposal System (ESWDS) will reduce the use of burn pits by providing an environmentally responsible solution for onsite disposal of 1,000 lbs. of solid waste per day. The ESWDS will also reduce Soldier, civilian, and local population exposure to harmful pollutants from open air burn pits; reduce the amount of trash that must be backhauled, reducing Soldiers' exposure and attacks during convoy operations; reduce the waste held onsite also deters potential vermin that could spread disease and disrupt mission and eliminate the security risk from uncontrolled access to trash. The requirement to phase out burn pits is also driven by the FY2020 National Defense Authorization Act (NDAA).

The Containerized Ice Making System (CIMS) provides a self-contained capability to produce potable ice on-site for the Force Provider Expeditionary (FPE) 150 person camp and other small base camps. It is containerized for transport in a single 1/3 TRICON with a maximum weight of 10,000 Lbs. The CIMS system will draw water from a potable source, manufacture ice cubes and automatically package them in 10 lb. bags. It can produce a minimum of 3,600 lbs./day of ice to support 900 Soldiers per day, and store 120 bags of ice at any one time. Local ice production rather than external supply reduces the number of vehicles needed for resupply convoys, as well as the material handling and waste burdens associated with palletized ice bundles.

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.

Exhibit P-40, Budget Line Item Justification: PB 2022 Army		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 90: Other Support Equipment	**P-1 Line Item Number / Title:** 1110MA4500 / Modification Of In-Svc Equipment (OPA-3)	
ID Code (A=Service Ready, B=Not Service Ready):	**Program Elements for Code B Items:** N/A	**Other Related Program Elements:** N/A
Line Item MDAP/MAIS Code: N/A		

The Field Feeding Containerized Kitchen (CK) Kitchen is the kitchen that feeds the Brigade Combat Teams (BCTs), each providing up to three hot meals per day for 800 Soldiers to maintain combat effectiveness in the field. Modifications are needed to address issues negatively effecting Soldier safety and health and to improve system readiness. Soldier injuries have resulted from equipment failures and procedural errors. Interior temperatures can reach over 150F in hot weather. Carbon Monoxide hazards have resulted in multiple CO poisoning incidents. Contractor applied engineering change kits include improved burner exhaust provisions, heat removal, replacement of failing winches, and other improvements for better durability, sustainability and safety.

The Explosive Ordnance Disposal (EOD) Modification of In-Service Equipment will be used to modify tool kits approved for EOD use. The EOD Response Tool Kit (RTK) has not been modified or upgraded for more than 25 years. The kits contain special tools and equipment that EOD units use to render safe explosive ordnance. The modification will include adding the capability to provide decontamination for teams, as well as individuals, during suspected or confirmed exposure to chemical elements, adding the capability to locate and render safe Improvised Explosive Devices (IEDs), and modifying the kit packaging into smaller, mission unique kits to provide EOD technicians the ability to perform 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 587.

The EOD Modification of In-Service Equipment will also be used to modify the EOD Platoon Supplemental Kit (PSK), which has not been modified or upgraded for more than 25 years. The PSK augments the EOD Response Tool Kit (RTK) to enable the EOD Heavy Team to perform missions beyond the capability of the RTK, such as EOD munitions with chemical or biological fill. The expanded capabilities include special expendable charge containers that can be packed with C4 or detonation cord for vehicle entry and disruption of improvised explosive devices, up-to-date borescope, and large image capture. The Army Acquisition Objective (AAO) for the EOD Platoon Supplemental Kit modification is 220.

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

The AN/PSS-14C is an enabler for Soldier Lethality as it guarantees Soldier maneuverability by enhancing the probability and speed of detection of buried landmines and IEDs allowing for increased speed of dismounted operations making the unit more efficient and lethal. The modifications will include retrofitting fielded systems with previously purchased upgrade kits that include new electronic boards, hand controller hardware, and updated software. These upgrades will require training/fielding of the system to address changes in the system operation from current software/hardware configuration.

The M41A1 Protection Assessment Test System (PATS) is a military version of a commercial device - TSI's "Model 8020M PortaCount Respirator Fit Tester" with accessories and carrying case comprise a system designed to check the readiness of protective masks. The M41A1 PATS instrument is one man portable, approximately 200 cubic inches in size, weighs 4 pounds, and is based on a miniature Condensation Nucleus Counter that continuously samples and counts individual particles naturally occurring in the surrounding air. The M41A1 PATS measures the concentration of these particles inside and outside the mask and calculates a Fit Factor (FF). The PATS is designed to verify that a protective mask, while worn by a Soldier, is capable of providing a minimum Army requirement FF of 1667. The PATS verifies: (1) the fit of the mask to the soldiers' face is acceptable, and (2) there are no critical leaks in the mask system. In addition to these features, the PATS can also be used to help screen for unserviceable masks, assist in determining if Preventive Maintenance Checks and Services (PMCS) have been conducted properly on critical components, and assist in training personnel on the proper wearing of the mask. A modernized PATS is needed as the legacy system is no longer manufacturable due to technological obsolescence of critical calibration components. The modernized M41A1 PATS will have modern technologies and updated components, such as circuit boards, rendering them producible, manufacturable and can be maintained into FY2035.

The M139 Volcano Mine Dispensing System is a mine delivery system. Volcano was originally fielded for use on tactical vehicles from the 1980s along with the UH-60M Blackhawk aircraft. The prime movers for the system have been replaced and currently lack required safety certifications for safe usage. The in-service modification will complete initial engineering activities and complete system life extension modifications for worldwide ground and air use. Configuration and interface issues with the Class VII components of the Mine Clearing Line Charge (MICLIC) system (MK155 Mod 3 Launcher and M200 trailer) will also be addressed. The MICLIC system is used to breach vehicle-wide paths through minefields and to counter Improvised Explosive Device (IED) arrays. Funding will support rectifying interface issues between the launcher and new production M200 trailers, and other initial engineering activities in preparation for life extension modifications.

Exhibit P-40, Budget Line Item Justification: PB 2022 Army		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 90: Other Support Equipment	**P-1 Line Item Number / Title:** 1110MA4500 / Modification Of In-Svc Equipment (OPA-3)	
ID Code (A=Service Ready, B=Not Service Ready):	**Program Elements for Code B Items:** N/A	**Other Related Program Elements:** N/A
Line Item MDAP/MAIS Code: N/A		

The Modular Fuel System (MFS) Tank Rack Module (TRM) is a 2,500 gallon mobile storage and distribution platform. It is configured in a 20 foot International Organization for Standardization (ISO) frame with integrated bale bar and is Heavy Expanded Mobility Tactical Truck-Load Handling System (HEMTT-LHS), Palletized Load Handling System (PLS) and PLS Trailer transportable. The MFS-TRM has a Stand-Alone Retail Capability (S-ARC) with its integrated continuous use electric pump, filter separator and flow meter. It can be operated while truck or trailer mounted or on the ground. The MFS-TRM can also be coupled with the HEMTT Tanker to form a highly mobile 5,000 gallon distribution platform within Brigade Combat Teams. The MFS provides the ability to rapidly establish a fuel distribution and storage capability at any location regardless of the availability of construction equipment or material handling equipment. The AAO is 3,917 TRMs.

The Dry Support Bridge (DSB) is the Multi-Role Bridging Company's mobile tactical bridging platform. The DSB is employed in tactical and assault contingency situations when a longer bridging span is required to maintain forward momentum of joint maneuver forces. The 40 meter DSB can span a 40 meter gap or two 20 meter gaps. The 46 meter bridge can span a 46 meter gap or two 28 meter gaps (with 46 meter retrofit upgrade). Both have a crossing weight capability of Military Load Class (MLC) 96 normal/120 under caution (Wheeled) and MLC 80 (Tracked). The DSB has a road width of 4.3 meters and an emplacement time of 90 minutes or less, with little or no site preparation.

The Rapidly Emplaced Bridge System (REBS) is a self-deployable/retrievable bridge that provides the SBCT and IBCT with an organic tactical gap crossing capability. The REBS can be employed by two Soldiers in less than ten minutes and is air transportable by C-130. The system is transported across the battlefield by a Heavy Tactical Common Bridge Transporter (CBT) and is comprised of two bridge halves and a pallet that is utilized to launch and retrieve the bridge. REBS is capable of crossing a 13 meter gap with an MLC of 40 normal and 50 caution.

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

Secondary Distribution		FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026
Army	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	97.367	60.545	22.156	-	22.156	-	-	-	-
ANG	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	8.990	2.376	5.990	-	5.990	-	-	-	-
AR	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	0.455	3.564	4.246	-	4.246	-	-	-	-
Total: Secondary Distribution	**Quantity**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
	Total Obligation Authority	**106.812**	**66.485**	**32.392**	**-**	**32.392**	**-**	**-**	**-**	**-**

Exhibit P-40, Budget Line Item Justification: PB 2022 Army	Date: May 2021
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 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 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	M04411 / MAINTENANCE EQUIPMENT IN-SERVICE-MODIFICATION		A		- / -	- / -	- / -	- / 3.336	- / -	- / 3.336
P-40a	MA4504 / TACTICAL BRIDGING MODIFICATIONS				11 / 70.304	20 / 10.433	15 / 7.848	5 / 2.182	- / -	5 / 2.182
P-40a	R01121 / EOD MODIFICATION OF IN-SVC EQUIPMENT				123 / 27.211	465 / 33.354	- / -	- / -	- / -	- / -
P-3a	MA4501 / MODIFICATION KITS (-)				- / 968.707	- / 48.916	- / 53.386	- / 21.300	- / -	- / 21.300
P-3a	MA4502 / INSTALLATION OF MODIFICATIONS (-)				- / 266.645	- / 14.109	- / 5.251	- / 5.574	- / -	- / 5.574
P-40	**Total Gross/Weapon System Cost**				**- / 1,332.867**	**- / 106.812**	**- / 66.485**	**- / 32.392**	**- / -**	**- / 32.392**

*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 2022 Base procurement dollars in the amount of $32.392 million supports the following efforts:

M04411:
PM SKOT (PEO CS & CSS): FY 2022 Base procurement dollars in the amount of $3.336 supports the Metal Working and Machining Shop Set (MWMSS) Additive Manufacturing (AM), Engineering Change Proposal (ECP): Incorporating AM into already fielded systems via a Modification Work Order (MWO). These funds are to put the AM Kit into previously produced and fielded MWMSS Type II's.

MWMSS inserts AM capability and consolidates numerous metal working and machining capabilities into one deployable system supporting Gaps 10 & 17.

SSN M04411 is a new start in FY2022.

MA4501:
Modification Items #1 Material Handling Equipment (MHE) Technical Insertion (PEO CS & CSS) - FY 2022 Base procurement dollars for Material Handling Equipment (MHE) of $2.808 million provides RTCH Special Tools and Program Support costs to support Base requirements. 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 entire MHE portfolio, to include the Rough Terrain Container Handler (RTCH); All-Terrain Lifter, Army System (ATLAS); and Light Capability Rough Terrain Forklift (LCRTF). These improvements (e.g. new control units) will decrease rising sustainment costs and bridge the gap until new system procurement in future years.

Note: Based on the current execution of the program, FY 2021 quantities should be 35 for Army RTCH Modernization. Quantities will be updated to adjust for actual execution data prior to the submission of the FY 2023 President's Budget.

Modification Item #2 Construction Equipment (CE) Tech Insertion (PEO CS & CSS) - There is no FY 2022 funding for this modification item.

Modification Item #3 Army Watercraft Systems (PEO CS & CSS) - FY 2022 funding total includes $7.111 million for Base only. FY 2022 Base procurement dollars in the amount of $7.111 million supports pier side and shipyard modifications of all outstanding and emerging Engineering Change Proposals (ECP) and Modification Work Orders (MWO) across the watercraft fleet. Application of ECPs/MWOs will regain fleet configuration control, improve operational readiness, correct safety and regulatory deficiencies, comply with changing federal statutory and regulatory mandates, comply with safety of life at sea (SOLAS) requirements and comply with all necessary environmental requirements. Funding also supports Program Management/Matrix Support, and upgrades/modifications to Army Watercraft Systems which are

Exhibit P-40, Budget Line Item Justification: PB 2022 Army		Date: May 2021
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		

completed as required to resolve any survivability / force protection - lethal and non-lethal Escalation of Force (EoF) issues, and technical insertions. Program Management/Matrix Support includes Program Management and System Engineering, Logistics oversight required to manage the program and provide contractor oversight.

Modification Item #4 M139 Volcano Mine Dispensing System (JPEO A&A) - FY 2022 Base procurement dollars in the amount of $9.407 million supports the modification of 30 volcano systems. The M139 Volcano Mine Dispensing System is a mine delivery system. Volcano was originally fielded for use on tactical vehicles from the 1980s along with the UH-60M Blackhawk aircraft. The prime movers for the system have been replaced and currently lack required safety certifications for safe usage. The in-service modification will complete initial engineering activities and complete system life extension modifications for worldwide ground and air use.

Modification Item #5 Mine Clearing Line Charge (MICLIC) (JPEO A&A) - There is no FY 2022 funding for this modification item.

Modification Item #6 CBRN Soldier Protection M41A1 PATS (PEO Joint Program Office Biological Defense) - There is no FY 2022 funding for this modification item.

Modification Item #7 Force Provider (PEO CS & CSS) - FY21 congressional add is provided for the Containerized Ice Making System (CIMS). MA4501 Force Provider has no FY2022 funding request.

Modification Item #8 Food Sanitation Center (PEO CS & CSS) - MA4501 Food Sanitation Center has no FY2022 funding request.

Modification Item #9 Field Feeding (PEO CS& CSS) - FY22 base procurement dollars in the amount of $1.974 million provides for modifications to field feeding platforms (field kitchens and associated systems) to address issues and upgrades to fielded assets. These funds support base requirements.

MA4502:
Modification Item #1 Petroleum and Water Systems (PEO CS & CSS) - 2022 Base procurement dollars in the amount of $1.754 million supports the Modular Fuel System - Tank Rack Module M107 40 GPM pump upgrade. There are currently two fielded variants of the TRM (M107 & M10A1). The M107 TRM has a 20 GPM fuel pump as compared to the 40 GPM pump on the M107A1. ECP will install the M107A1 pump (and correlating Filter Separator) into the M107 resulting in a 100% faster pumping time. Filling the Abrams M1 Tank (490 gal fuel cell) will be reduced by 50% (only take 12.25 minutes to fill versus the 24.5 minutes). Soldier safety will increase with reduced exposure of the operator to enemy gunfire and fighting down time for the M1. ECP would also provide a smaller logistics footprint due to the commonality of the fuel pump and filter separator of the two TRM variants.
MA4502 - MFS TRM - M107 40gpm Pump Kit is a new start in FY2022
AAO: 800 MFS-TRM M107 require ECP 40 GPM pump upgrade.

Modification Item #2 Army Watercraft Systems (PEO CS & CSS) - FY 2022 funding total includes $3.820 million for Base only. FY 2022 Base procurement dollars in the amount of $3.820 million supports pier side and shipyard modifications of all outstanding and emerging Engineering Change Proposals (ECP) and Modification Work Orders (MWO) across the watercraft fleet. Application of ECPs/MWOs will regain fleet configuration control, improve operational readiness, correct safety and regulatory deficiencies, comply with changing federal statutory and regulatory mandates, comply with safety of life at sea (SOLAS) requirements and comply with all necessary environmental requirements. Funding also supports Program Management/Matrix Support, and upgrades/modifications to Army Watercraft Systems which are completed as required to resolve any survivability / force protection - lethal and non-lethal Escalation of Force (EoF) issues, and technical insertions. Program Management/Matrix Support includes Program Management and System Engineering, Logistics oversight required to manage the program and provide contractor oversight.

Modification Item #3 AN/PSS-14C (JPEO A&A) - There is no FY 2022 funding for this modification item.

MA4504:
Modification Items #1, #2, and #3: Bridging (PEO CS & CSS) - These modification items are not funded in FY2022.

Exhibit P-40, Budget Line Item Justification: PB 2022 Army		Date: May 2021
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 Item #4: Bridging (PEO CS & CSS) - FY 2022 Base procurement dollars in the amount of $1.792 million supports the Rapidly Emplaced Bridge System (REBS) V3 Kits for REBS modifications and modernization through installation of a heating device for the winch, decentralization of the hydraulic valves to shorten the distance between valves and cylinders, and installation of a hydraulic power pack to use the CBT as the main power source. This modification increases the reliability and durability of the REBS launcher.

Modification Items #5: Bridging (PEO CS & CSS) - These modification items are not funded in FY2022.

Modification Item #6: Bridging (PEO CS & CSS) - FY 2022 Base procurement dollars in the amount of $0.390 million support the Rapidly Emplaced Bridge System (REBS) V3 Kits for FSR support.

Modification Items #7 and #8: Bridging (PEO CS & CSS) - These modification items are not funded in FY2022.

R01121:
Modification Item #1 and #3 Explosive Ordnance Disposal (EOD) Equipment (JPEO A&A) - There is no FY22 funding for this modification item.

Modification Item #2 DR SKO (Joint Program Office Biological Defense) - There is no FY22 funding for this modification item.

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-40a, Budget Item Justification For Aggregated Items: PB 2022 Army		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 90	**P-1 Line Item Number / Title:** 1110MA4500 / Modification Of In-Svc Equipment (OPA-3)	**Aggregated Items Title:** Various

Item Number / Title [DODIC]	ID CD	MDAP/ MAIS Code	Prior Years			FY 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 Total		
			Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)
Various Items																				
M04411 / MAINTENANCE EQUIPMENT IN-SERVICE-MODIFICATION	A		-	-	-	-	-	-	-	-	-	-	-	3.336	-	-	-	-	-	3.336
Secondary Distribution																				
Army				-	-		-	-		-	-		-	1.468		-	-		-	1.468
ANG				-	-		-	-		-	-		-	1.260		-	-		-	1.260
AR				-	-		-	-		-	-		-	0.608		-	-		-	0.608
MA4504 / TACTICAL BRIDGING MODIFICATIONS			6,391.273	11	70.304	521.650	20	10.433	523.200	15	7.848	436.400	5	2.182	-	-	-	436.400	5	2.182
Secondary Distribution																				
Army				-	-		20	10.433		5	1.908		5	2.182		-	-		5	2.182
ANG				-	-		-	-		4	2.376		-	-		-	-		-	-
AR				-	-		-	-		6	3.564		-	-		-	-		-	-
R01121 / EOD MODIFICATION OF IN-SVC EQUIPMENT			221.228	123	27.211	71.729	465	33.354	-	-	-	-	-	-	-	-	-	-	-	-
Secondary Distribution																				
Army				-	-		347	25.835		-	-		-	-		-	-		-	-
ANG				-	-		118	7.519		-	-		-	-		-	-		-	-
Subtotal: Various Items			**-**	**-**	***97.515***	**-**	**-**	***43.787***	**-**	**-**	***7.848***	**-**	**-**	***5.518***	**-**	**-**	**-**	**-**	**-**	***5.518***
Total			**-**	**-**	**97.515**	**-**	**-**	**43.787**	**-**	**-**	**7.848**	**-**	**-**	**5.518**	**-**	**-**	**-**	**-**	**-**	**5.518**

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

Exhibit P-3a, Individual Modification: PB 2022 Army		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 90	**P-1 Line Item Number / Title:** 1110MA4500 / Modification Of In-Svc Equipment (OPA-3)	**Modification Number / Title:** MA4501 / MODIFICATION KITS
ID Code (A=Service Ready, B=Not Service Ready) :	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	968.707	48.916	53.386	21.300	-	21.300
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	968.707	48.916	53.386	21.300	-	21.300
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**968.707**	**48.916**	**53.386**	**21.300**	**-**	**21.300**
(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)*	1,092.116	61.997	360.716	104.412	-	104.412

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 2022 Base procurement dollars for Material Handling Equipment (MHE) in the amount of $2.808 million provides RTCH Special Tools and Program Support costs. In addition to the base description above, the Material Handling Equipment (MHE) Modification of In-Service Equipment program funds system modifications and modernization initiatives across the entire MHE portfolio, to include the Rough Terrain Container Handler (RTCH); All-Terrain Lifter, Army System (ATLAS); and Light Capability Rough Terrain Forklift (LCRTF). These improvements (e.g. new control units) will decrease rising sustainment costs and bridge the gap until new system procurement in future years.

Modification Item #2 Construction Equipment (CE) Tech Insertion (PEO CS & CSS) - There is no FY 2022 funding for this modification item.

Modification Item #3 Army Watercraft Systems (PEO CS & CSS) - FY 2022 funding total includes $7.111 million for Base only. FY 2022 Base procurement dollars in the amount of $7.111 million supports pier side and shipyard modifications of all outstanding and emerging Engineering Change Proposals (ECP) and Modification Work Orders (MWO) across the watercraft fleet. Application of ECPs/MWOs will regain fleet configuration control, improve operational readiness, correct safety and regulatory deficiencies, comply with changing federal statutory and regulatory mandates, comply with safety of life at sea (SOLAS) requirements and comply with all necessary environmental requirements. Funding also supports Program Management/Matrix Support, and upgrades/modifications to Army Watercraft Systems which are completed as required to resolve any survivability / force protection - lethal and non-lethal Escalation of Force (EoF) issues, and technical insertions. Program Management/Matrix Support includes Program Management and System Engineering, Logistics oversight required to manage the program and provide contractor oversight.

Modification Item #4 M139 Volcano Mine Dispensing System (JPEO A&A) - FY 2022 Base procurement dollars in the amount of $9.407 million supports modification of 30 volcano systems. The M139 Volcano Mine Dispensing System is a mine delivery system. Volcano was originally fielded for use on tactical vehicles from the 1980s along with the UH-60M Blackhawk aircraft. The prime movers for the system have been replaced and currently lack required safety certifications for safe usage. The in-service modification will complete initial engineering activities and complete system life extension modifications for worldwide ground and air use.

Modification Item #5 Mine Clearing Line Charge (MICLIC) (JPEO A&A) - There is no FY 2022 funding request for this modification item.

Modification Item #6 CBRN Soldier Protection M41A1 PATS (PEO Joint Program Office Biological Defense) - MA4501 has no FY2022 funding request.

Exhibit P-3a, Individual Modification: PB 2022 Army		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 90	**P-1 Line Item Number / Title:** 1110MA4500 / Modification Of In-Svc Equipment (OPA-3)	**Modification Number / Title:** MA4501 / MODIFICATION KITS
ID Code (A=Service Ready, B=Not Service Ready) :	**MDAP/MAIS Code:**	

Modification Item #7 Force Provider (PEO CS & CSS) - FY21 congressional add provided for the Containerized Ice Making System (CIMS). There is no FY 2022 funding for this modification item.

Modification Item #8 Food Sanitation Center (PEO CS & CSS) - There is no FY 2022 funding for this modification item.

Modification Item #9 Field Feeding (PEO CS & CSS) - FY22 Base Procurement dollars in the amount of $1.974 million provides for modifications to field feeding platforms (field kitchens and associated systems) to address issues and upgrades to fielded assets. The Containerized Kitchen is the kitchen that feeds the Brigade Combat Teams (BCTs), each providing up to three hot meals per day for 800 Soldiers to maintain combat effectiveness in the field. Modifications are needed to address issues negatively effecting Soldier safety and health and to improve system readiness. Soldier injuries have resulted from equipment failures and procedural errors. Interior temperatures can reach over 150F in hot weather. Carbon Monoxide hazards have resulted in multiple CO poisoning incidents. Contractor applied engineering change kits include improved burner exhaust provisions, heat removal, replacement of failing winches, and other improvements for better durability, sustainability and safety.

Secondary Distribution		FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Army	Quantity	-	-	-	-	-
	Total Obligation Authority	46.990	53.386	13.360	-	13.360
ANG	Quantity	-	-	-	-	-
	Total Obligation Authority	1.471	-	4.302	-	4.302
AR	Quantity	-	-	-	-	-
	Total Obligation Authority	0.455	-	3.638	-	3.638
Total: Secondary Distribution	**Quantity**	**-**	**-**	**-**	**-**	**-**
	Total Obligation Authority	**48.916**	**53.386**	**21.300**	**-**	**21.300**

Exhibit P-3a, Individual Modification: PB 2022 Army		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 90	**P-1 Line Item Number / Title:** 1110MA4500 / Modification Of In-Svc Equipment (OPA-3)	**Modification Number / Title:** MA4501 / MODIFICATION KITS
ID Code (A=Service Ready, B=Not Service Ready) :	**MDAP/MAIS Code:**	
Models of Systems Affected: -	**Modification Type:** -	**Related RDT&E PEs:**

Financial Plan	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 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)*
Procurement						
Modification Item 1 of 10: Material Handling Equipment Technical Insertion						
A Kits						
Recurring						
Other (RTCH Special Tools, Program Spt)	10 / 0.732	- / 0.243	50 / 3.246	24 / 2.808	- / -	24 / 2.808
Other (RTCH Program, Modernization)	- / -	15 / 10.000	40 / 20.000	- / -	- / -	- / -
Subtotal: Recurring	*10 / 0.732*	*15 / 10.243*	*90 / 23.246*	*24 / 2.808*	*- / -*	*24 / 2.808*
Subtotal: Material Handling Equipment Technical Insertion	*10 / 0.732*	*15 / 10.243*	*90 / 23.246*	*24 / 2.808*	*- / -*	*24 / 2.808*
Modification Item 2 of 10: Construction Equipment Technical Insertion						
A Kits						
Recurring						
Other	- / 34.143	- / -	- / -	- / -	- / -	- / -
Subtotal: Recurring	*- / 34.143*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*
B Kits						
Recurring						
Scraper Armor Kits	4 / 0.953	- / -	- / -	- / -	- / -	- / -
Blade Leveling A Kits	95 / 8.814	- / -	- / -	- / -	- / -	- / -
Other	- / 7.160	- / -	- / -	- / -	- / -	- / -
Subtotal: Recurring	*99 / 16.927*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*
Subtotal: Construction Equipment Technical Insertion	*99 / 51.070*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*
Modification Item 3 of 10: Army Watercraft Systems						
A Kits						
Recurring						
AWS Modifications	- / -	- / 9.348	- / -	- / -	- / -	- / -
Safety/Environmental MWO's/PQDR's/ECP's	- / 16.221	- / 3.781	- / 4.055	- / 3.484	- / -	- / 3.484
C4ISR	- / 24.956	- / 1.890	- / 1.993	- / 1.778	- / -	- / 1.778
Matrix Support	- / 12.293	- / 1.800	- / 1.296	- / 1.138	- / -	- / 1.138
Program Management	- / 5.150	- / 0.839	- / 0.814	- / 0.711	- / -	- / 0.711
Training Equipment	- / 608.689	- / -	- / -	- / -	- / -	- / -
Subtotal: Recurring	*- / 667.309*	*- / 17.658*	*- / 8.158*	*- / 7.111*	*- / -*	*- / 7.111*
Subtotal: Army Watercraft Systems	*- / 667.309*	*- / 17.658*	*- / 8.158*	*- / 7.111*	*- / -*	*- / 7.111*

Exhibit P-3a, Individual Modification: PB 2022 Army		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 90	**P-1 Line Item Number / Title:** 1110MA4500 / Modification Of In-Svc Equipment (OPA-3)	**Modification Number / Title:** MA4501 / MODIFICATION KITS
ID Code (A=Service Ready, B=Not Service Ready) :	**MDAP/MAIS Code:**	
Models of Systems Affected: -	**Modification Type:** -	**Related RDT&E PEs:**

Financial Plan	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 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)*
Modification Item 4 of 10: M139 Volcano Mine Dispersing System						
A Kits						
Recurring						
M139 Volcano Mine Dispersing System	33 / 4.023	6 / 1.694	25 / 7.982	30 / 9.407	- / -	30 / 9.407
Subtotal: Recurring	*33 / 4.023*	*6 / 1.694*	*25 / 7.982*	*30 / 9.407*	*- / -*	*30 / 9.407*
Subtotal: M139 Volcano Mine Dispersing System	*33 / 4.023*	*6 / 1.694*	*25 / 7.982*	*30 / 9.407*	*- / -*	*30 / 9.407*
Modification Item 5 of 10: Mine Clearing Line Charge (MICLIC)						
A Kits						
Non-Recurring						
MICLIC (Mine Clearing Charge)	- / 0.500	- / -	- / -	- / -	- / -	- / -
Subtotal: Non-Recurring	*- / 0.500*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*
Subtotal: Mine Clearing Line Charge (MICLIC)	*- / 0.500*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*
Modification Item 6 of 10: CBRN Soldier Protection M41A1 PATS						
A Kits						
Recurring						
M41A1 8020M Systems	1,409 / 12.553	572 / 5.892	- / -	- / -	- / -	- / -
Tech Data	- / 0.467	- / -	- / -	- / -	- / -	- / -
Program Management	- / 0.860	- / 0.454	- / -	- / -	- / -	- / -
Subtotal: Recurring	*1,409 / 13.880*	*572 / 6.346*	*- / -*	*- / -*	*- / -*	*- / -*
Subtotal: CBRN Soldier Protection M41A1 PATS	*1,409 / 13.880*	*572 / 6.346*	*- / -*	*- / -*	*- / -*	*- / -*
Modification Item 7 of 10: Force Provider						
A Kits						
Recurring						
Force Provider	- / 188.161	17 / 12.975	23 / 14.000	- / -	- / -	- / -
Subtotal: Recurring	*- / 188.161*	*17 / 12.975*	*23 / 14.000*	*- / -*	*- / -*	*- / -*
Subtotal: Force Provider	*- / 188.161*	*17 / 12.975*	*23 / 14.000*	*- / -*	*- / -*	*- / -*
Modification Item 8 of 10: Food Sanitation Center						
A Kits						
Recurring						
Other	- / 15.069	- / -	- / -	- / -	- / -	- / -

Exhibit P-3a, Individual Modification: PB 2022 Army		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 90	**P-1 Line Item Number / Title:** 1110MA4500 / Modification Of In-Svc Equipment (OPA-3)	**Modification Number / Title:** MA4501 / MODIFICATION KITS
ID Code (A=Service Ready, B=Not Service Ready) :	**MDAP/MAIS Code:**	
Models of Systems Affected: -	**Modification Type:** -	**Related RDT&E PEs:**

Financial Plan	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 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)*
Subtotal: Recurring	- / 15.069	- / -	- / -	- / -	- / -	- / -
Subtotal: Food Sanitation Center	- / 15.069	- / -	- / -	- / -	- / -	- / -
Modification Item 9 of 10: Field Feeding						
A Kits						
Recurring						
Field Feeding CK Mod Kits	- / -	- / -	- / -	138 / 1.974	- / -	138 / 1.974
Subtotal: Recurring	- / -	- / -	- / -	138 / 1.974	- / -	138 / 1.974
Subtotal: Field Feeding	- / -	- / -	- / -	138 / 1.974	- / -	138 / 1.974
Modification Item 10 of 10: Adjustment						
A Kits						
Recurring						
Adjustment	- / 24.851	- / -	- / -	- / -	- / -	- / -
Subtotal: Recurring	- / 24.851	- / -	- / -	- / -	- / -	- / -
Subtotal: Adjustment	- / 24.851	- / -	- / -	- / -	- / -	- / -
Subtotal: Procurement, All Modification Items	1,551 / 965.595	610 / 48.916	138 / 53.386	192 / 21.300	- / -	192 / 21.300
Installation						
Modification Item 6 of 10: CBRN Soldier Protection M41A1 PATS	1,409 / -	1,095 / -	- / -	- / -	- / -	- / -
Modification Item 7 of 10: Force Provider	- / 1.880	- / -	- / -	- / -	- / -	- / -
Modification Item 8 of 10: Food Sanitation Center	- / 1.232	- / -	- / -	- / -	- / -	- / -
Subtotal: Installation	1,409 / 3.112	1,095 / -	- / -	- / -	- / -	- / -
Total						
Total Cost (Procurement + Support + Installation)	**968.707**	**48.916**	**53.386**	**21.300**	**-**	**21.300**

Exhibit P-3a, Individual Modification: PB 2022 Army		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 90	**P-1 Line Item Number / Title:** 1110MA4500 / Modification Of In-Svc Equipment (OPA-3)	**Modification Number / Title:** MA4501 / MODIFICATION KITS
ID Code (A=Service Ready, B=Not Service Ready) :	**MDAP/MAIS Code:**	

Modification Item 1 of 10: Material Handling Equipment Technical Insertion

Manufacturer Information

Manufacturer Name: Various	Manufacturer Location: Various
Administrative Leadtime *(in Months)*:	Production Leadtime *(in Months)*:

Dates	FY 2020	FY 2021	FY 2022
Contract Dates			
Delivery Dates			

Installation Information

Method of Implementation (Organic): Various	**Installation Quantity:** 0

Exhibit P-3a, Individual Modification: PB 2022 Army		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 90	**P-1 Line Item Number / Title:** 1110MA4500 / Modification Of In-Svc Equipment (OPA-3)	**Modification Number / Title:** MA4501 / MODIFICATION KITS
ID Code (A=Service Ready, B=Not Service Ready) :	**MDAP/MAIS Code:**	

Modification Item 2 of 10: Construction Equipment Technical Insertion

Manufacturer Information

Manufacturer Name: Various	Manufacturer Location: Various
Administrative Leadtime *(in Months)*: 4	Production Leadtime *(in Months)*: 2

Dates	FY 2020	FY 2021	FY 2022
Contract Dates			
Delivery Dates			

Installation Information

Method of Implementation (Organic): Various	**Installation Quantity:** 0

Exhibit P-3a, Individual Modification: PB 2022 Army		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 90	**P-1 Line Item Number / Title:** 1110MA4500 / Modification Of In-Svc Equipment (OPA-3)	**Modification Number / Title:** MA4501 / MODIFICATION KITS
ID Code (A=Service Ready, B=Not Service Ready) :	**MDAP/MAIS Code:**	

Modification Item 3 of 10: Army Watercraft Systems

Manufacturer Information

Manufacturer Name: Various	Manufacturer Location: Various
Administrative Leadtime *(in Months)*:	Production Leadtime *(in Months)*:

Dates	FY 2020	FY 2021	FY 2022
Contract Dates			
Delivery Dates			

Installation Information

Method of Implementation (Organic): -	**Installation Quantity:** 0

Exhibit P-3a, Individual Modification: PB 2022 Army		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 90	**P-1 Line Item Number / Title:** 1110MA4500 / Modification Of In-Svc Equipment (OPA-3)	**Modification Number / Title:** MA4501 / MODIFICATION KITS
ID Code (A=Service Ready, B=Not Service Ready) :	**MDAP/MAIS Code:**	

Modification Item 4 of 10: 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 2020	FY 2021	FY 2022
Contract Dates			
Delivery Dates			

Installation Information

Method of Implementation (Organic): To Be Selected	**Installation Quantity:** 0

Exhibit P-3a, Individual Modification: PB 2022 Army		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 90	**P-1 Line Item Number / Title:** 1110MA4500 / Modification Of In-Svc Equipment (OPA-3)	**Modification Number / Title:** MA4501 / MODIFICATION KITS
ID Code (A=Service Ready, B=Not Service Ready) :	**MDAP/MAIS Code:**	

Modification Item 5 of 10: 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 2020	FY 2021	FY 2022
Contract Dates			
Delivery Dates			

Installation Information

Method of Implementation (Organic): To Be Selected	**Installation Quantity:** 0

Exhibit P-3a, Individual Modification: PB 2022 Army		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 90	**P-1 Line Item Number / Title:** 1110MA4500 / Modification Of In-Svc Equipment (OPA-3)	**Modification Number / Title:** MA4501 / MODIFICATION KITS
ID Code (A=Service Ready, B=Not Service Ready) :	**MDAP/MAIS Code:**	

Modification Item 6 of 10: CBRN Soldier Protection M41A1 PATS

Manufacturer Information

Manufacturer Name: Manufacturer Name: TSI, Inc.	Manufacturer Location: Shoreview, MN
Administrative Leadtime *(in Months)*: 2	Production Leadtime *(in Months)*: 7

Dates	FY 2020	FY 2021	FY 2022
Contract Dates	Dec 2019		
Delivery Dates	Jul 2020		

Installation Information

Method of Implementation: Contract

Installation Cost	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 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)*
Prior Years	1,409 / 0.000	- / -	- / -	- / -	- / -	- / -
FY 2020	0 / 0.000	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	1,095 / 0.000	- / -	- / -	- / -	- / -
FY 2022	0 / 0.000	- / -	- / -	- / -	- / -	- / -
Total	1,409 / 0.000	1,095 / 0.000	- / -	- / -	- / -	- / -

Installation Schedule

		FY 2020				FY 2021				FY 2022			
	PYS	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
In	1,349	-	-	282	-	-	350	-	-	-	-	-	-
Out	1,349	-	-	-	-	282	-	-	350	-	-	-	-

Exhibit P-3a, Individual Modification: PB 2022 Army		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 90	**P-1 Line Item Number / Title:** 1110MA4500 / Modification Of In-Svc Equipment (OPA-3)	**Modification Number / Title:** MA4501 / MODIFICATION KITS

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

Modification Item 7 of 10: Force Provider

Manufacturer Information

Manufacturer Name: TBD	Manufacturer Location: TBD
Administrative Leadtime *(in Months)*: 10	Production Leadtime *(in Months)*: 12

Dates	FY 2020	FY 2021	FY 2022
Contract Dates	Mar 2021	Mar 2022	
Delivery Dates	Jan 2022	Jan 2023	

Installation Information

Method of Implementation: New Contract

Installation Cost	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 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)*
Prior Years	0 / 1.880	- / -	- / -	- / -	- / -	- / -
FY 2020	0 / 0.000	- / -	- / -	- / -	- / -	- / -
FY 2021	0 / 0.000	- / -	- / -	- / -	- / -	- / -
FY 2022	0 / 0.000	- / -	- / -	- / -	- / -	- / -
Total	0 / 1.880	- / -	- / -	- / -	- / -	- / -

Installation Schedule

	PYS	FY 2020				FY 2021				FY 2022			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
In	692	-	-	-	-	-	-	-	-	-	2	5	5
Out	692	-	-	-	-	-	-	-	-	-	-	2	5

Exhibit P-3a, Individual Modification: PB 2022 Army		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 90	**P-1 Line Item Number / Title:** 1110MA4500 / Modification Of In-Svc Equipment (OPA-3)	**Modification Number / Title:** MA4501 / MODIFICATION KITS
ID Code (A=Service Ready, B=Not Service Ready) :	**MDAP/MAIS Code:**	

Modification Item 8 of 10: 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 2020	FY 2021	FY 2022
Contract Dates			
Delivery Dates			

Installation Information

Method of Implementation: C/FP

Installation Cost	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 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)*
Prior Years	0 / 1.232	- / -	- / -	- / -	- / -	- / -
FY 2020	0 / 0.000	- / -	- / -	- / -	- / -	- / -
FY 2021	0 / 0.000	- / -	- / -	- / -	- / -	- / -
FY 2022	0 / 0.000	- / -	- / -	- / -	- / -	- / -
Total	0 / 1.232	- / -	- / -	- / -	- / -	- / -

Installation Schedule

	PYS	FY 2020				FY 2021				FY 2022			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
In	2,277	-	-	-	-	-	-	-	-	-	-	-	-
Out	2,277	-	-	-	-	-	-	-	-	-	-	-	-

Exhibit P-3a, Individual Modification: PB 2022 Army		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 90	**P-1 Line Item Number / Title:** 1110MA4500 / Modification Of In-Svc Equipment (OPA-3)	**Modification Number / Title:** MA4501 / MODIFICATION KITS
ID Code (A=Service Ready, B=Not Service Ready) :	**MDAP/MAIS Code:**	

Modification Item 9 of 10: Field Feeding

Manufacturer Information

Manufacturer Name: Ready One Industries	Manufacturer Location: El Paso, TX
Administrative Leadtime *(in Months)*: 3	Production Leadtime *(in Months)*:

Dates	FY 2020	FY 2021	FY 2022
Contract Dates			Jan 2022
Delivery Dates			Aug 2022

Installation Information

Method of Implementation (Organic): C/FP	**Installation Quantity:** 0

Exhibit P-3a, Individual Modification: PB 2022 Army		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 90	**P-1 Line Item Number / Title:** 1110MA4500 / Modification Of In-Svc Equipment (OPA-3)	**Modification Number / Title:** MA4501 / MODIFICATION KITS
ID Code (A=Service Ready, B=Not Service Ready) :	**MDAP/MAIS Code:**	

Modification Item 10 of 10: Adjustment

Manufacturer Information

Manufacturer Name: -	Manufacturer Location: -
Administrative Leadtime *(in Months)*:	Production Leadtime *(in Months)*:

Dates	FY 2020	FY 2021	FY 2022
Contract Dates			
Delivery Dates			

Installation Information

Method of Implementation (Organic): -	**Installation Quantity:** 0

Exhibit P-3a, Individual Modification: PB 2022 Army		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 90	**P-1 Line Item Number / Title:** 1110MA4500 / Modification Of In-Svc Equipment (OPA-3)	**Modification Number / Title:** MA4502 / INSTALLATION OF MODIFICATIONS
ID Code (A=Service Ready, B=Not Service Ready) :	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	266.645	14.109	5.251	5.574	-	5.574
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	266.645	14.109	5.251	5.574	-	5.574
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**266.645**	**14.109**	**5.251**	**5.574**	**-**	**5.574**
(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)*	155.478	-	-	34.838	-	34.838

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) - 2022 Base procurement dollars in the amount of $1.754 million supports the Modular Fuel System - Tank Rack Module M107 40 GPM pump upgrade. There are currently two fielded variants of the TRM (M107 & M10A1). The M107 TRM has a 20 GPM fuel pump as compared to the 40 GPM pump on the M107A1. ECP will install the M107A1 pump (and correlating Filter Separator) into the M107 resulting in a 100% faster pumping time. Filling the Abrams M1 Tank (490 gal fuel cell) will be reduced by 50% (only take 12.25 minutes to fill versus the 24.5 minutes). Soldier safety will increase with reduced exposure of the operator to enemy gunfire and fighting down time for the M1. ECP would also provide a smaller logistics footprint due to the commonality of the fuel pump and filter separator of the two TRM variants.

MA4502 - MFS TRM - M107 40gpm Pump Kit is a new start in FY2022

AAO: 800 MFS-TRM M107 require ECP 40 GPM pump upgrade

Modification Item #2 Army Watercraft Systems (PEO CS & CSS) - FY 2022 funding total includes $3.820 million for Base only. FY 2022 Base procurement dollars in the amount of $3.820 million supports completion of pier side and shipyard modifications of all outstanding and emerging Engineering Change Proposals (ECP) and Modification Work Orders (MWO) across the watercraft fleet. Application of ECPs/ MWOs will regain fleet configuration control, improve operational readiness, correct safety and regulatory deficiencies, comply with changing federal statutory and regulatory mandates, comply with safety of life at sea (SOLAS) requirements and comply with all necessary environmental requirements. Funding also supports Program Management/Matrix Support, and upgrades/modifications to Army Watercraft Systems which are completed as required to resolve any survivability /force protection - lethal and non-lethal Escalation of Force (EoF) issues, and technical insertions. Program Management/Matrix Support includes Program Management and System Engineering, Logistics oversight required to manage the program and provide contractor oversight.

Modification Items #3 AN/PSS-14C (JPEO A&A) - There is no FY 2022 funding for this modification.

Exhibit P-3a, Individual Modification: PB 2022 Army		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 90	**P-1 Line Item Number / Title:** 1110MA4500 / Modification Of In-Svc Equipment (OPA-3)	**Modification Number / Title:** MA4502 / INSTALLATION OF MODIFICATIONS
ID Code (A=Service Ready, B=Not Service Ready) :	**MDAP/MAIS Code:**	

Secondary Distribution		FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Army	Quantity	-	-	-	-	-
	Total Obligation Authority	14.109	5.251	5.146	-	5.146
ANG	Quantity	-	-	-	-	-
	Total Obligation Authority	-	-	0.428	-	0.428
Total: Secondary Distribution	**Quantity**	**-**	**-**	**-**	**-**	**-**
	Total Obligation Authority	**14.109**	**5.251**	**5.574**	**-**	**5.574**

Exhibit P-3a, Individual Modification: PB 2022 Army		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 90	**P-1 Line Item Number / Title:** 1110MA4500 / Modification Of In-Svc Equipment (OPA-3)	**Modification Number / Title:** MA4502 / INSTALLATION OF MODIFICATIONS
ID Code (A=Service Ready, B=Not Service Ready) :	**MDAP/MAIS Code:**	
Models of Systems Affected: -	**Modification Type:** -	**Related RDT&E PEs:**

Financial Plan	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 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)*
Procurement						
Modification Item 1 of 4: Petroleum/Water Systems PEO-CS-CSS - MFS-TRM - M107 40gpm Pump Kit						
A Kits						
Recurring						
MFS-TRM - M107 40gpm Pump Kit	- / -	- / -	- / -	160 / 1.220	- / -	160 / 1.220
Subtotal: Recurring	*- / -*	*- / -*	*- / -*	*160 / 1.220*	*- / -*	*160 / 1.220*
Non-Recurring						
Prior Years	- / 3.251	- / -	- / -	- / -	- / -	- / -
Subtotal: Non-Recurring	*- / 3.251*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*
Subtotal: Petroleum/Water Systems PEO-CS-CSS - MFS-TRM - M107 40gpm Pump Kit	*- / 3.251*	*- / -*	*- / -*	*160 / 1.220*	*- / -*	*160 / 1.220*
Modification Item 2 of 4: Army Watercraft Systems						
Subtotal: Army Watercraft Systems	*- / 0.000*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*
Modification Item 3 of 4: AN/PSS-14 (HSTAMIDS)						
A Kits						
Recurring						
AN/PSS-14C	7,204 / 51.172	- / -	- / -	- / -	- / -	- / -
HMDS	- / 8.740	- / -	- / -	- / -	- / -	- / -
Subtotal: Recurring	*7,204 / 59.912*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*
Non-Recurring						
AN/PSS-14C	- / 3.433	- / -	- / -	- / -	- / -	- / -
HMDS	- / 0.591	- / -	- / -	- / -	- / -	- / -
Subtotal: Non-Recurring	*- / 4.024*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*
Subtotal: AN/PSS-14 (HSTAMIDS)	*7,204 / 63.936*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*
Modification Item 4 of 4: Adjustments						
A Kits						
Non-Recurring						
Adjustments	- / 167.630	- / -	- / -	- / -	- / -	- / -
Subtotal: Non-Recurring	*- / 167.630*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*
Subtotal: Adjustments	*- / 167.630*	*- / -*	*- / -*	*- / -*	*- / -*	*- / -*
Subtotal: Procurement, All Modification Items	*7,204 / 234.817*	*- / -*	*- / -*	*160 / 1.220*	*- / -*	*160 / 1.220*

Exhibit P-3a, Individual Modification: PB 2022 Army		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 90	**P-1 Line Item Number / Title:** 1110MA4500 / Modification Of In-Svc Equipment (OPA-3)	**Modification Number / Title:** MA4502 / INSTALLATION OF MODIFICATIONS
ID Code (A=Service Ready, B=Not Service Ready) :	**MDAP/MAIS Code:**	
Models of Systems Affected: -	**Modification Type:** -	**Related RDT&E PEs:**

Financial Plan	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 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)*
Installation						
Modification Item 1 of 4: Petroleum/Water Systems PEO-CS-CSS - MFS-TRM - M107 40gpm Pump Kit	- / -	- / -	- / -	160 / 0.534	- / -	160 / 0.534
Modification Item 2 of 4: Army Watercraft Systems	- / 22.420	- / 7.328	- / 3.397	- / 3.820	- / -	- / 3.820
Modification Item 3 of 4: AN/PSS-14 (HSTAMIDS)	- / 9.408	- / 6.781	- / 1.854	- / -	- / -	- / -
Subtotal: Installation	*- / 31.828*	*- / 14.109*	*- / 5.251*	*160 / 4.354*	*- / -*	*160 / 4.354*
Total						
Total Cost (Procurement + Support + Installation)	**266.645**	**14.109**	**5.251**	**5.574**	**-**	**5.574**

Exhibit P-3a, Individual Modification: PB 2022 Army		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 90	**P-1 Line Item Number / Title:** 1110MA4500 / Modification Of In-Svc Equipment (OPA-3)	**Modification Number / Title:** MA4502 / INSTALLATION OF MODIFICATIONS

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

Modification Item 1 of 4: Petroleum/Water Systems PEO-CS-CSS - MFS-TRM - M107 40gpm Pump Kit

Manufacturer Information

Manufacturer Name: TBD | Manufacturer Location: TBD

Administrative Leadtime *(in Months)*: 1 | Production Leadtime *(in Months)*: 4

Dates	FY 2020	FY 2021	FY 2022
Contract Dates			Nov 2021
Delivery Dates			Apr 2022

Installation Information

Method of Implementation: Field install at unit

Installation Cost	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 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)*
Prior Years	0 / 0.000	- / -	- / -	- / -	- / -	- / -
FY 2020	0 / 0.000	- / -	- / -	- / -	- / -	- / -
FY 2021	0 / 0.000	- / -	- / -	- / -	- / -	- / -
FY 2022	- / -	- / -	- / -	160 / 0.534	- / -	160 / 0.534
Total	- / -	- / -	- / -	160 / 0.534	- / -	160 / 0.534

Installation Schedule

	PYS	FY 2020				FY 2021				FY 2022			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
In	3,220	-	-	-	-	-	-	-	-	160	-	-	-
Out	3,220	-	-	-	-	-	-	-	-	-	-	40	40

Exhibit P-3a, Individual Modification: PB 2022 Army		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 90	**P-1 Line Item Number / Title:** 1110MA4500 / Modification Of In-Svc Equipment (OPA-3)	**Modification Number / Title:** MA4502 / INSTALLATION OF MODIFICATIONS

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

Modification Item 2 of 4: Army Watercraft Systems

Manufacturer Information

Manufacturer Name: Various	Manufacturer Location: Various
Administrative Leadtime *(in Months)*:	Production Leadtime *(in Months)*:

Dates	FY 2020	FY 2021	FY 2022
Contract Dates			
Delivery Dates			

Installation Information

Method of Implementation: -

Installation Cost	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 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)*
Prior Years	0 / 22.420	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	0 / 7.328	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	0 / 3.397	- / -	- / -	- / -
FY 2022	- / -	- / -	- / -	0 / 3.820	- / -	0 / 3.820
Total	0 / 22.420	0 / 7.328	0 / 3.397	0 / 3.820	- / -	0 / 3.820

Installation Schedule

	PYS	FY 2020				FY 2021				FY 2022			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
In	-	-	-	-	-	-	-	-	-	-	-	-	-
Out	-	-	-	-	-	-	-	-	-	-	-	-	-

Exhibit P-3a, Individual Modification: PB 2022 Army		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 90	**P-1 Line Item Number / Title:** 1110MA4500 / Modification Of In-Svc Equipment (OPA-3)	**Modification Number / Title:** MA4502 / INSTALLATION OF MODIFICATIONS

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

Modification Item 3 of 4: AN/PSS-14 (HSTAMIDS)

Manufacturer Information

Manufacturer Name: L3 CyTerra | Manufacturer Location: Orlando, Fl

Administrative Leadtime *(in Months)*: | Production Leadtime *(in Months)*:

Dates	FY 2020	FY 2021	FY 2022
Contract Dates			
Delivery Dates			

Installation Information

Method of Implementation: -

Installation Cost	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 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)*
Prior Years	0 / 9.408	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	0 / 6.781	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	0 / 1.854	- / -	- / -	- / -
FY 2022	0 / 0.000	- / -	- / -	- / -	- / -	- / -
Total	0 / 9.408	0 / 6.781	0 / 1.854	- / -	- / -	- / -

Installation Schedule

	PYS	FY 2020				FY 2021				FY 2022			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
In	7,204	-	-	-	-	-	-	-	-	-	-	-	-
Out	7,204	-	-	-	-	-	-	-	-	-	-	-	-

Exhibit P-3a, Individual Modification: PB 2022 Army		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 90	**P-1 Line Item Number / Title:** 1110MA4500 / Modification Of In-Svc Equipment (OPA-3)	**Modification Number / Title:** MA4502 / INSTALLATION OF MODIFICATIONS

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

Modification Item 4 of 4: Adjustments

Manufacturer Information

Manufacturer Name: -	Manufacturer Location: -
Administrative Leadtime *(in Months)*:	Production Leadtime *(in Months)*:

Dates	FY 2020	FY 2021	FY 2022
Contract Dates			
Delivery Dates			

Installation Information

Method of Implementation (Organic): -	**Installation Quantity:** 0

Exhibit P-40, Budget Line Item Justification: PB 2022 Army	Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 90: Other Support Equipment	**P-1 Line Item Number / Title:** 1500MA9160 / BUILDING, PRE-FAB, RELOCATABLE

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

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	1,003.012	114.559	31.845	32.227	-	32.227	-	-	-	-	-	-
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	1,003.012	114.559	31.845	32.227	-	32.227	-	-	-	-	-	-
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**1,003.012**	**114.559**	**31.845**	**32.227**	**-**	**32.227**	**-**	**-**	**-**	**-**	**-**	**-**
(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 Building, Pre-Fab, Relocatable Program (MA9160) funding line supports the relocatable building Restoration and Modernization (RM) activity providing the capability to emplace and lifecycle relocatable buildings in the U.S. Central Command region in Southwest Asia. Restoration and Modernization (RM) provides resources which support Facilities Restoration, Modernization, Demolition, and Utilities Restoration & Modernization.

MA9160 / Relocatable Building Program, Base & Overseas Contingency Operations (OCO) OCONUS:
This line includes FY22 Base funding which emplaces and modernizes relocatable buildings at enduring and contingency locations across Southwest Asia supporting the Enduring Requirement for Operation Spartan Shield (OSS), the Enduring Requirement Base Prog/Bud-Operation Spartan Shield.

Base: FY22 base procurement dollars of $32.227 million will procure up to 188 relocatable buildings to emplace and lifecycle needed facilities for modernization in the Southwest Asia (SWA) Area of Responsibility (AOR) in support of the Enduring Requirement Base Prog/Bud-Operation Spartan Shield at Army locations. These relocatable buildings comprise a large portion of the facilities in which troops work and live. The relocatable buildings include offices, armories, dining facilities, billeting and latrines in enduring locations within countries such as Jordan, Kuwait, Saudi Arabia and U.A.E.

All funding goes to the Active Component.

Secondary Distribution		FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026
Army	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	114.559	31.845	32.227	-	32.227	-	-	-	-
Total: Secondary Distribution	**Quantity**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
	Total Obligation Authority	**114.559**	**31.845**	**32.227**	**-**	**32.227**	**-**	**-**	**-**	**-**

Exhibit P-40, Budget Line Item Justification: PB 2022 Army		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 90: Other Support Equipment	**P-1 Line Item Number / Title:** 1500MA9160 / BUILDING, PRE-FAB, RELOCATABLE	
ID Code (A=Service Ready, B=Not Service Ready):	**Program Elements for Code B Items:** N/A	**Other Related Program Elements:** N/A
Line Item MDAP/MAIS Code: N/A		

Exhibits Schedule					Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/ MAIS Code	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*
P-5	MA9160 / BUILDING, PRE-FAB, RELOCATABLE	P-5a, P-21			- / 1,003.012	- / 114.559	- / 31.845	- / 32.227	- / -	- / 32.227
P-40	**Total Gross/Weapon System Cost**				**- / 1,003.012**	**- / 114.559**	**- / 31.845**	**- / 32.227**	**- / -**	**- / 32.227**

*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:
FY22 base procurement dollars of $32.227 million will procure up to 188 relocatable buildings to emplace and lifecycle needed facilities for modernization (where $29.103 million of these resources will support Southwest Asia (SWA) Area of Responsibility (AOR) toward Enduring Requirement for Operation Spartan Shield at Army locations and $3.124 million is in support of the Direct War Costs for Operation Inherent Resolve). These procurements include offices, armories, dining facilities, billeting and latrines in enduring locations within countries such as Jordan, Kuwait, and U.A.E. The cost per item is averaged because each of the relocatable building types will have a different contract cost. The buildings are needed to provide and/or replace working and living facilities for troops in the enduring locations. Without the new buildings, troops would continue to live and work in expeditionary facilities and tents in enduring locations with exceptionally hot climates creating safety and health risks. Without the ability to replace relocatable buildings that are beyond life cycle, troops would continue to live in buildings that will become unrepairable and expose them to potential electrical dangers. There are several thousand relocatable buildings within the Operation Spartan Shield (OSS) footprint that will be included in this life cycle program.

All funding goes to the Active Component.

Exhibit P-5, Cost Analysis: PB 2022 Army		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 90	**P-1 Line Item Number / Title:** 1500MA9160 / BUILDING, PRE-FAB, RELOCATABLE	**Item Number / Title [DODIC]:** MA9160 / BUILDING, PRE-FAB, RELOCATABLE
ID Code (A=Service Ready, B=Not Service Ready) :	**MDAP/MAIS Code:**	

Resource Summary	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	1,003.012	114.559	31.845	32.227	-	32.227
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	1,003.012	114.559	31.845	32.227	-	32.227
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**1,003.012**	**114.559**	**31.845**	**32.227**	**-**	**32.227**
(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 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 Total		
	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	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																		
Relocatable Buildings for BASE Program(†)	-	-	995.812	221.538	65	14.400	-	-	-	171.420	188	32.227	-	-	-	171.420	188	32.227
Relocatable Buildings for OCO Program(†)	211.765	34	7.200	176.959	566	100.159	169.388	188	31.845	-	-	-	-	-	-	-	-	-
Subtotal: Recurring Cost	-	-	*1,003.012*	-	-	*114.559*	-	-	*31.845*	-	-	*32.227*	-	-	-	-	-	*32.227*
Subtotal: Hardware Cost	**-**	**-**	***1,003.012***	**-**	**-**	***114.559***	**-**	**-**	***31.845***	**-**	**-**	***32.227***	**-**	**-**	**-**	**-**	**-**	***32.227***
Gross/Weapon System Cost	**-**	**-**	**1,003.012**	**-**	**-**	**114.559**	**-**	**-**	**31.845**	**-**	**-**	**32.227**	**-**	**-**	**-**	**-**	**-**	**32.227**

Remarks:
The Building, Pre-Fab, Relocatable Program (MA9160) funding line supports the relocatable building Restoration and Modernization (RM) activity providing the capability to emplace and lifecycle relocatable buildings in the U.S. Central Command region in Southwest Asia. Restoration and Modernization (RM) provides resources which support Facilities Restoration, Modernization, Demolition, and Utilities Restoration & Modernization. Resources are Other Procurement, Army (OPA) funding for the Active Component. RM excludes undertakings by military construction funds or categorized as Base Realignment and Closure (BRAC) effort.

Secondary Distribution		FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Army	Quantity	-	-	-	-	-
	Total Obligation Authority	114.559	31.845	32.227	-	32.227
Total:	**Quantity**	**-**	**-**	**-**	**-**	**-**

Exhibit P-5, Cost Analysis: PB 2022 Army		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 90	**P-1 Line Item Number / Title:** 1500MA9160 / BUILDING, PRE-FAB, RELOCATABLE	**Item Number / Title [DODIC]:** MA9160 / BUILDING, PRE-FAB, RELOCATABLE
ID Code (A=Service Ready, B=Not Service Ready) :	**MDAP/MAIS Code:**	

Secondary Distribution		FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Secondary Distribution	Total Obligation Authority	114.559	31.845	32.227	-	32.227

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2022 Army		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 90	P-1 Line Item Number / Title: 1500MA9160 / BUILDING, PRE-FAB, RELOCATABLE	Item Number / Title [DODIC]: MA9160 / BUILDING, PRE-FAB, RELOCATABLE

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
Relocatable Buildings for BASE Program(†)		2020	Ready One Industries / El Paso, Texas	C / FFP	408th Contracting Cmd, Kuwait	Dec 2019	Mar 2020	65	221.538	N		
Relocatable Buildings for BASE Program		2021	Ready One Industries / El Paso, Texas	C / FFP	408th Contracting Cmd, Kuwait	Dec 2020	Mar 2021	0	0.000	N		
Relocatable Buildings for BASE Program(†)		2022	Ready One Industries / El Paso, Texas	C / FFP	408th Contracting Command, Kuwait	Dec 2021	Mar 2022	188	171.420	N		
Relocatable Buildings for OCO Program		2020	Ready One Industries / El Paso, Texas	C / FFP	408th Contracting Cmd, Kuwait	Dec 2019	Mar 2020	566	176.959	N		
Relocatable Buildings for OCO Program		2021	Ready One Industries / El Paso, Texas	C / FFP	408th Contracting Command, Kuwait	Dec 2020	Mar 2021	188	169.388	N		
Relocatable Buildings for OCO Program		2022	Ready One Industries / El Paso, Texas	C / FFP	408th Contracting Command, Kuwait	Dec 2021	Mar 2022	0	0.000	N		

(†) indicates the presence of a P-21

Remarks:
The Building, Pre-Fab, Relocatable Program (MA9160) funding line supports the relocatable building Restoration and Modernization (RM) activity providing the capability to emplace and lifecycle relocatable buildings in the U.S. Central Command region in Southwest Asia. Restoration and Modernization (RM) provides resources which support Facilities Restoration, Modernization, Demolition, and Utilities Restoration & Modernization. Resources are Other Procurement, Army (OPA) funding for the Active Component. RM excludes undertakings by military construction funds or categorized as Base Realignment and Closure (BRAC) effort.

Exhibit P-21, Production Schedule: PB 2022 Army		**Date:** May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 90	**P-1 Line Item Number / Title:** 1500MA9160 / BUILDING, PRE-FAB, RELOCATABLE	**Item Number / Title [DODIC]:** MA9160 / BUILDING, PRE-FAB, RELOCATABLE

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	
Relocatable Buildings for BASE Program																															
	1	2020	ARMY	65	0	65			A -	-	-	20	20	20	5																0
	1	2022	ARMY	188	0	188																									188
							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 2022 Army		**Date:** May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 90	**P-1 Line Item Number / Title:** 1500MA9160 / BUILDING, PRE-FAB, RELOCATABLE	**Item Number / Title [DODIC]:** MA9160 / BUILDING, PRE-FAB, RELOCATABLE

Cost Elements (Units in Each)							Fiscal Year 2022												Fiscal Year 2023												BALANCE
										Calendar Year 2022												Calendar Year 2023									
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2021	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	
Relocatable Buildings for BASE Program																															
	1	2020	ARMY	65	65	0																									0
	1	2022	ARMY	188	0	188			A -	-	-	30	30	30	30	30	20														18
							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 2022 Army		**Date:** May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 90	**P-1 Line Item Number / Title:** 1500MA9160 / BUILDING, PRE-FAB, RELOCATABLE	**Item Number / Title [DODIC]:** MA9160 / BUILDING, PRE-FAB, RELOCATABLE

MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Month)			Procurement Leadtime (Months)							
					Initial				Reorder			
		MSR For 2022	1-8-5 For 2022	MAX For 2022	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	Ready One Industries - El Paso, Texas	10	90	200	3	2	3	5	3	2	3	5

Remarks:
The Building, Pre-Fab, Relocatable Program (MA9160) funding line supports the relocatable building Restoration and Modernization (RM) activity providing the capability to emplace and lifecycle relocatable buildings in the U.S. Central Command region in Southwest Asia. Restoration and Modernization (RM) provides resources which support Facilities Restoration, Modernization, Demolition, and Utilities Restoration & Modernization. Resources are Other Procurement, Army (OPA) funding for the Active Component. RM excludes undertakings by military construction funds or categorized as Base Realignment and Closure (BRAC) effort.

"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 2022 Army	Date: May 2021
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 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026	To Complete	Total
Procurement Quantity *(Units in Each)*	23	13	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	673.844	9.821	-	-	-	-	-	-	-	-	-	-
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	673.844	9.821	-	-	-	-	-	-	-	-	-	-
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**673.844**	**9.821**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
(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)*	29,297.565	755.462	-	-	-	-	-	-	-	-	-	-

Description:

Special Equipment for User Testing is comprised of multiple programs for the Major Operational Testing Instrumentation and Army Threat Simulator Program. Program provides funding for Major Operational Testing Instrumentation, Major Field Instrumentation for Operational Testing (OT), Force Development Testing and Experimentation (FDTE), and Army Warfighting Experiments (AWE). Initiatives are tied to tactical and instrumentation systems that support each of the five joint functional concepts outlined in the Army Modernization Plan (Force Application; Protection; Focused Logistics; Battlespace Awareness; Command and Control). The Army Threat Simulator Program procures actual foreign hardware and Non-Developmental Items (NDI) (e.g., chassis, subsystems, commercial equipment, or actual threat weapons), which are integrated into a threat simulator design for user testing and training. The program also procures a variety of test assets, such as Threat Battle Command Force, Threat Operations, Advanced Jammer Suite, and Advanced Electronic Support Sensor Suite.

Special Equipment for User Testing programs provides support at: Army Test and Evaluation Command (ATEC) and Operational Test Command (OTC) facilities to include Transformation Technology Directorate (TTD) at Fort Hood, TX; Fire Support Test Directorate (FSTD) at Fort Sill, OK; Airborne Special Operations Test Directorate (ABSOTD) at Fort Bragg, NC; Air Defense Artillery Test Directorate (ADATD) and Electronic Proving Ground (EPG) at Fort Huachuca, AZ; Aberdeen Test Center (ATC); Redstone Test Center (RTC); White Sands Test Center (WSTC); and Yuma Test Center (YTC).

Special Equipment for User Testing was moved to MA6820 for the FY2021 funding request.

Secondary Distribution		FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026
Army	Quantity	13	-	-	-	-	-	-	-	-
	Total Obligation Authority	9.821	-	-	-	-	-	-	-	-
Total: Secondary Distribution	**Quantity**	**13**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
	Total Obligation Authority	**9.821**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**

Exhibit P-40, Budget Line Item Justification: PB 2022 Army	Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 90: Other Support Equipment	**P-1 Line Item Number / Title:** 1573MA6820 / Special Equipment for Test and Evaluation

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

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	23	22	-	22	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	-	-	39.436	76.917	-	76.917	-	-	-	-	-	-
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	-	-	39.436	76.917	-	76.917	-	-	-	-	-	-
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**-**	**-**	**39.436**	**76.917**	**-**	**76.917**	**-**	**-**	**-**	**-**	**-**	**-**
(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)*	-	-	1,714.609	3,496.227	-	3,496.227	-	-	-	-	-	-

Description:

Special Equipment for User Testing is comprised of multiple programs for the Major Developmental & Operational Testing Instrumentation and Army Threat Simulator Program. Program provides funding for Major Operational Testing Instrumentation, Major Field Instrumentation for Operational Testing (OT), Force Development Testing and Experimentation (FDTE), and Army Warfighting Experiments (AWE). Initiatives are tied to tactical and instrumentation systems that support each of the five joint functional concepts outlined in the Army Modernization Plan (Force Application; Protection; Focused Logistics; Battlespace Awareness; Command and Control). The Army Threat Simulator Program procures actual foreign hardware and Non-Developmental Items (NDI) (e.g., chassis, subsystems, commercial equipment, or actual threat weapons), which are integrated into a threat simulator design for user testing and training. The program also procures a variety of test assets, such as Threat Battle Command Force, Threat Operations, Advanced Jammer Suite, and Advanced Electronic Support Sensor Suite.

Special Equipment for User Testing programs provides support at: Army Test and Evaluation Command (ATEC) and Operational Test Command (OTC) facilities to include Transformation Technology Directorate (TTD) at Fort Hood, TX; Fire Support Test Directorate (FSTD) at Fort Sill, OK; Airborne Special Operations Test Directorate (ABSOTD) at Fort Bragg, NC; Air Defense Artillery Test Directorate (ADATD) and Electronic Proving Ground (EPG) at Fort Huachuca, AZ; Aberdeen Test Center (ATC); Redstone Test Center (RTC); White Sands Test Center (WSTC); and Yuma Test Center (YTC).

Optics Modernization will provide a cost-effective and technologically superior replacement for the aging fleet of optical tracking systems at WSTC, YTC, ATC, RTC and OTC. This capability will consist of two different optical tracking systems: a small, highly dynamic Close-In Optical Tracking System readily deployed at ground level or on elevated platforms; and a medium-sized Fly-Out Optical Tracking System to accommodate larger payloads for longer range imaging requirements. Both systems will incorporate multi-waveband optics and sensors to allow simultaneous sensing in visible and infrared bands. Remote operability, weatherization, and improved data fusion with other range sensor systems will provide the efficiency and robustness unavailable with current architecture. Optics Modernization supports the Long Range Precision Fires, Next Generation Combat Vehicle, Future Vertical Lift and Air & Missile Defense Cross-Functional teams.

This program is not a new start effort. Funds for Special Equipment for User Testing / Threat Systems have transitioned from MA6700.

Secondary Distribution		FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026
Army	Quantity	-	23	22	-	22	-	-	-	-
	Total Obligation Authority	-	39.436	76.917	-	76.917	-	-	-	-

Exhibit P-40, Budget Line Item Justification: PB 2022 Army		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 90: Other Support Equipment	**P-1 Line Item Number / Title:** 1573MA6820 / Special Equipment for Test and Evaluation	
ID Code (A=Service Ready, B=Not Service Ready):	**Program Elements for Code B Items:** N/A	**Other Related Program Elements:** N/A
Line Item MDAP/MAIS Code: N/A		

Secondary Distribution		FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026
Total: Secondary Distribution	Quantity	-	23	22	-	22	-	-	-	-
	Total Obligation Authority	-	39.436	76.917	-	76.917	-	-	-	-

Exhibit P-40, Budget Line Item Justification: PB 2022 Army		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A: Other Procurement, Army / BA 03: Other Support Equipment / BSA 90: Other Support Equipment	**P-1 Line Item Number / Title:** 1573MA6820 / Special Equipment for Test and Evaluation	
ID Code (A=Service Ready, B=Not Service Ready):	**Program Elements for Code B Items:** N/A	**Other Related Program Elements:** N/A
Line Item MDAP/MAIS Code: N/A		

Exhibits Schedule					Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/ MAIS Code	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)	Quantity / Total Cost (Each) / ($ M)
P-5	MA6821 / Optics Modernization	P-5a, P-21			- / -	- / -	5 / 28.925	12 / 60.976	- / -	12 / 60.976
P-5	MA6822 / Threat Systems	P-5a			- / -	- / -	18 / 10.511	10 / 15.941	- / -	10 / 15.941
P-40	**Total Gross/Weapon System Cost**				**- / -**	**- / -**	**23 / 39.436**	**22 / 76.917**	**- / -**	**22 / 76.917**

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

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

Justification:

In FY 2022, Optics Modernization funding in the amount of $60.976 million will provide for the procurement of five Fly-Out systems. These systems will be used at White Sands Test Center (WSTC), Yuma Test Center (YTC) and Aberdeen Test Center (ATC) in support of developmental testing requirements. This program leverages OSD/CTEIP funded development in order to provide modernized optical tracking systems with enhanced capabilities.

In FY2022, Threat Systems funding in the amount of $15.941 million procures multiple threat systems (Electronic Warfare (EW); Command, Control, and Communications; and Advanced Jamming) required to support the developmental and operational testing and training of network centric threat scenarios. These threat scenarios are critical to integrating digital battlefield data collection and analysis tools that support the establishment of robust command and control capabilities. These tools will collect, store, and analyze data from this new dimension of digital command and control battlefield warfare capabilities. The Army will field Advanced Jammer capabilities to fulfill developmental and operational test requirements for ongoing Joint Warfighter Assessments (JWA) and Army Futures Command Cross Functional Teams (CFTs). Threat Systems provides a validated threat in support of Army efforts to meet multi-domain operations by 2028. Validated threat jammers are a critical element to maintain threat EW density and realism required by Director, Operational Test and Evaluation to provide operationally relevant environments for Test and Evaluation (T&E) and training. Fielded threat capabilities are operated, maintained, and sustained as one integrated threat electronic warfare force in support of Army T&E activities. Threat EW costs fluctuate from year-to-year based on usage, spare part needs, tech refresh, and requirements.

Exhibit P-5, Cost Analysis: PB 2022 Army		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 90	P-1 Line Item Number / Title: 1573MA6820 / Special Equipment for Test and Evaluation	Item Number / Title [DODIC]: MA6821 / Optics Modernization
ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:	

Resource Summary	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Procurement Quantity *(Units in Each)*	-	-	5	12	-	12
Gross/Weapon System Cost *($ in Millions)*	-	-	28.925	60.976	-	60.976
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	-	-	28.925	60.976	-	60.976
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**-**	**-**	**28.925**	**60.976**	**-**	**60.976**
(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)*	-	-	5,785.000	5,081.333	-	5,081.333

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

Cost Elements	Prior Years			FY 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 Total		
	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)
Flyaway Cost																		
Recurring Cost																		
Close-In System(†)	-	-	-	-	-	-	8,511.000	1	8.511	3,295.667	6	19.774	-	-	-	3,295.667	6	19.774
Fly-Out System(†)	-	-	-	-	-	-	4,966.750	4	19.867	6,142.500	6	36.855	-	-	-	6,142.500	6	36.855
Auxilary Trailer	-	-	-	-	-	-	547.000	1	0.547	-	-	4.347	-	-	-	-	-	4.347
Subtotal: Recurring Cost	-	-	-	-	-	-	-	-	*28.925*	-	-	*60.976*	-	-	-	-	-	*60.976*
Subtotal: Flyaway Cost	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***28.925***	**-**	**-**	***60.976***	**-**	**-**	**-**	**-**	**-**	***60.976***
Gross/Weapon System Cost	**-**	**-**	**-**	**-**	**-**	**-**	**5,785.000**	**5**	**28.925**	**5,081.333**	**12**	**60.976**	**-**	**-**	**-**	**5,081.333**	**12**	**60.976**

Remarks:
This capability consists of two different optical tracking systems: a small, highly dynamic Close-In Optical Tracking System readily deployed at ground level or on elevated platforms; and a medium-sized Fly-Out Optical Tracking System to accommodate larger payloads for longer range imaging requirements.

FY 2021 Auxiliary trailer and Close-in quantities should have been zero (0) and therefore not included on the P5A or P21. The FY2021 unit-cost should have been $7.231M per unit for the Fly-Out system.

Secondary Distribution		FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Army	Quantity	-	5	12	-	12
	Total Obligation Authority	-	28.925	60.976	-	60.976
Total: Secondary Distribution	**Quantity**	**-**	**5**	**12**	**-**	**12**
	Total Obligation Authority	**-**	**28.925**	**60.976**	**-**	**60.976**

Exhibit P-5, Cost Analysis: PB 2022 Army		**Date:** May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 90	**P-1 Line Item Number / Title:** 1573MA6820 / Special Equipment for Test and Evaluation	**Item Number / Title [DODIC]:** MA6821 / Optics Modernization
ID Code (A=Service Ready, B=Not Service Ready) :	**MDAP/MAIS Code:**	

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2022 Army		**Date:** May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 90	**P-1 Line Item Number / Title:** 1573MA6820 / Special Equipment for Test and Evaluation	**Item Number / Title [DODIC]:** MA6821 / Optics Modernization

Cost Elements	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
Close-In System(†)		2021	TBD / TBD	C / FFP	ACC-Orlando	Jul 2021	Jul 2022	1	8,511.000	Y		
Fly-Out System(†)		2021	TBD / TBD	C / FFP	ACC-Orlando	Jul 2021	Jul 2022	4	4,966.750	Y		
Fly-Out System(†)		2022	TBD / TBD	C / FFP	ACC-Orlando	Jul 2022	Jan 2024	6	6,142.500	Y		

(†) indicates the presence of a P-21

Remarks:
In FY 2022, Optics Modernization funding in the amount of $29.207 million will provide for the procurement of five Fly-Out systems. These systems will be used at White Sands Test Center (WSTC), Yuma Test Center (YTC) and Aberdeen Test Center (ATC) in support of developmental testing requirements. This program leverages OSD/CTEIP funded development in order to provide modernized optical tracking systems with enhanced capabilities.

FY 2021 Auxiliary trailer quantity should have been zero (0) and therefore not included on the P5A or P21.

Exhibit P-21, Production Schedule: PB 2022 Army		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 90	**P-1 Line Item Number / Title:** 1573MA6820 / Special Equipment for Test and Evaluation	**Item Number / Title [DODIC]:** MA6821 / Optics Modernization

Cost Elements (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	
Close-In System																															
	1	2021	ARMY	1	0	1										A -	-	-	-	-	-	-	-	-	-	-	-	1			0
Fly-Out System																															
	2	2021	ARMY	4	0	4										A -	-	-	-	-	-	-	-	-	-	-	-	4			0
	2	2022	ARMY	6	0	6																						A -	-	-	6
							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 2022 Army		**Date:** May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 90	**P-1 Line Item Number / Title:** 1573MA6820 / Special Equipment for Test and Evaluation	**Item Number / Title [DODIC]:** MA6821 / Optics Modernization

Cost Elements (Units in Each)							Fiscal Year 2023												Fiscal Year 2024												BALANCE
							Calendar Year 2023												Calendar Year 2024												
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2022	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	
Close-In System																															
	1	2021	ARMY	1	1	0																									0
Fly-Out System																															
	2	2021	ARMY	4	4	0																									0
	2	2022	ARMY	6	0	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5									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 2022 Army		**Date:** May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 90	**P-1 Line Item Number / Title:** 1573MA6820 / Special Equipment for Test and Evaluation	**Item Number / Title [DODIC]:** MA6821 / Optics Modernization

MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Year)			Procurement Leadtime (Months)							
					Initial				Reorder			
		MSR For 2022	1-8-5 For 2022	MAX For 2022	ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1	ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1
1	TBD - TBD	1	6	6	0	9	18	27	0	0	0	0
2	TBD - TBD	1	6	6	0	9	18	27	0	0	0	0

Remarks:
In FY 2022, Optics Modernization funding in the amount of $29.207 million will provide for the procurement of five Fly-Out systems. These systems will be used at White Sands Test Center (WSTC), Yuma Test Center (YTC) and Aberdeen Test Center (ATC) in support of developmental testing requirements. This program leverages OSD/CTEIP funded development in order to provide modernized optical tracking systems with enhanced capabilities.

FY 2021 Auxiliary trailer quantity should have been zero (0) and therefore not included on the P5A or P21.

"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 2022 Army		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 90	P-1 Line Item Number / Title: 1573MA6820 / Special Equipment for Test and Evaluation	Item Number / Title [DODIC]: MA6822 / Threat Systems
ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:	

Resource Summary	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Procurement Quantity *(Units in Each)*	-	-	18	10	-	10
Gross/Weapon System Cost *($ in Millions)*	-	-	10.511	15.941	-	15.941
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	-	-	10.511	15.941	-	15.941
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**-**	**-**	**10.511**	**15.941**	**-**	**15.941**
(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)*	-	-	583.944	1,594.100	-	1,594.100

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

Cost Elements	Prior Years			FY 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 Total		
	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)
Flyaway Cost																		
Recurring Cost																		
Threat Electronic Warfare(†)	-	-	-	-	-	-	830.000	8	6.640	1,252.375	8	10.019	-	-	-	1,252.375	8	10.019
Threat Information Warfare(†)	-	-	-	-	-	-	790.000	1	0.790	2,532.000	1	2.532	-	-	-	2,532.000	1	2.532
Threat Network and Mission Command(†)	-	-	-	-	-	-	342.333	9	3.081	3,390.000	1	3.390	-	-	-	3,390.000	1	3.390
Subtotal: Recurring Cost	-	-	-	-	-	-	-	-	*10.511*	-	-	*15.941*	-	-	-	-	-	*15.941*
Subtotal: Flyaway Cost	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***10.511***	**-**	**-**	***15.941***	**-**	**-**	**-**	**-**	**-**	***15.941***
Gross/Weapon System Cost	**-**	**-**	**-**	**-**	**-**	**-**	**583.944**	**18**	**10.511**	**1,594.100**	**10**	**15.941**	**-**	**-**	**-**	**1,594.100**	**10**	**15.941**

Remarks:
Threat Electronic Warfare suites includes Next Generation Threat Communications Jammers and High Powered Advanced Jammers, Threat Information Warfare includes the Threat Operational Environments, and Threat Network and Mission Command includes Threat Battle Command Force Infrastructure and Command and Control Tactical Radio Networks.

Secondary Distribution		FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Army	Quantity	-	18	10	-	10
	Total Obligation Authority	-	10.511	15.941	-	15.941
Total:	**Quantity**	**-**	**18**	**10**	**-**	**10**

Exhibit P-5, Cost Analysis: PB 2022 Army		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 90	**P-1 Line Item Number / Title:** 1573MA6820 / Special Equipment for Test and Evaluation	**Item Number / Title [DODIC]:** MA6822 / Threat Systems
ID Code (A=Service Ready, B=Not Service Ready) :	**MDAP/MAIS Code:**	

Secondary Distribution		FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Secondary Distribution	Total Obligation Authority	-	10.511	15.941	-	15.941

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2022 Army		Date: May 2021
Appropriation / Budget Activity / Budget Sub Activity: 2035A / 03 / 90	P-1 Line Item Number / Title: 1573MA6820 / Special Equipment for Test and Evaluation	Item Number / Title [DODIC]: MA6822 / Threat Systems

Cost Elements	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 Electronic Warfare		2021	General Dynamics C4 / Scottsdale, AZ	C / CPFF	PEO STRI, Orlando, FL	Jan 2021	Oct 2022	8	830.000	N		
Threat Electronic Warfare		2022	General Dynamics C4 / Scottsdale, AZ	C / CPFF	PEO STRI, Orlando, FL	Jan 2022	Oct 2023	8	1,252.375	N		
Threat Information Warfare		2021	Northrup Grumman / Falls Church, VA	C / CPFF	PEO STRI, Orlando, FL	Dec 2020	Jan 2021	1	790.000	N		
Threat Information Warfare		2022	Northrup Grumman / Falls Church, VA	C / CPFF	PEO STRI, Orlando, FL	Dec 2021	Jan 2022	1	2,532.000	N		
Threat Network and Mission Command		2021	General Dynamics C4 / Scottsdale, AZ	C / CPFF	PEO STRI, Orlando, FL	Jan 2021	Jan 2022	9	342.333	N		
Threat Network and Mission Command		2022	General Dynamics C4 / Scottsdale, AZ	C / CPFF	PEO STRI, Orlano, FL	Jan 2022	Jan 2023	1	3,390.000	N		

Remarks:
Threat Operations costs fluctuate from year to year based on asset usage, spare part needs, tech refresh, and requirements.

Unit costs 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-40, Budget Line Item Justification: PB 2022 Army		Date: May 2021
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 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026	To Complete	Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	224.189	9.757	9.950	9.272	-	9.272	-	-	-	-	-	-
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	224.189	9.757	9.950	9.272	-	9.272	-	-	-	-	-	-
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**224.189**	**9.757**	**9.950**	**9.272**	**-**	**9.272**	**-**	**-**	**-**	**-**	**-**	**-**
(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:

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 six projects under Defense Enterprise Wideband SATCOM Systems (DEWSS) Program; SSN BB8500 . Spares support the modernization and upgrade to the Modernization of Enterprise Terminals (MET) systems, Enterprise Wideband Satellite Payload Control Systems, and Digital Communications Satellite Subsystems. The projects currently supported are as follows: Radio Frequency Modulated Orderwire (RFMOW), Wideband Remote Monitoring Sensor (WRMS), Modernization of Enterprise Terminals (MET), Wideband Operation Management System (WSOMS), Common Network Planning System (CNPS), and Wideband Training and Certification System (WTCS).

Secondary Distribution		FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026
Army	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	9.286	9.950	9.272	-	9.272	-	-	-	-
ANG	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	0.282	-	-	-	-	-	-	-	-
AR	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	0.189	-	-	-	-	-	-	-	-
Total: Secondary Distribution	**Quantity**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
	Total Obligation Authority	**9.757**	**9.950**	**9.272**	**-**	**9.272**	**-**	**-**	**-**	**-**

Exhibit P-40, Budget Line Item Justification: PB 2022 Army		Date: May 2021
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 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/ MAIS Code	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*
P-5	BS9716 / NON PEO-SPARES		A		995 / 61.951	108 / 3.857	185 / 3.896	- / 3.596	- / -	- / 3.596
P-5	BS9721 / DEFENSE SATCOM SYS SPARES (SPACE)				- / 162.238	- / 5.900	- / 6.054	- / 5.676	- / -	- / 5.676
P-40	**Total Gross/Weapon System Cost**				**- / 224.189**	**- / 9.757**	**- / 9.950**	**- / 9.272**	**- / -**	**- / 9.272**

*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 2022 Base procurement funding in the amount of $9.272 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 2022 Base procurement dollars in the amount of $3.596 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): FY2022 Base procurement dollars in the amount of $5.676 million procures spares for Wideband Operation Management System (WSOMS).

Exhibit P-5, Cost Analysis: PB 2022 Army		Date: May 2021
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 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Procurement Quantity *(Units in Each)*	995	108	185	-	-	-
Gross/Weapon System Cost *($ in Millions)*	61.951	3.857	3.896	3.596	-	3.596
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	61.951	3.857	3.896	3.596	-	3.596
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**61.951**	**3.857**	**3.896**	**3.596**	**-**	**3.596**
(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)*	62.262	35.713	21.059	-	-	-

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

Cost Elements	Prior Years			FY 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 Total		
	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)
Hardware Cost																		
Recurring Cost																		
INE Procurement	10.451	257	2.686	17.435	108	1.883	32.643	70	2.285	32.643	70	2.285	-	-	-	32.643	70	2.285
SV Procurement	3.188	112	0.357	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SKL Procurement	-	-	-	3.189	619	1.974	3.190	505	1.611	2.622	500	1.311	-	-	-	2.622	500	1.311
Subtotal: Recurring Cost	-	-	*3.043*	-	-	*3.857*	-	-	*3.896*	-	-	*3.596*	-	-	-	-	-	*3.596*
Subtotal: Hardware Cost	**-**	**-**	***3.043***	**-**	**-**	***3.857***	**-**	**-**	***3.896***	**-**	**-**	***3.596***	**-**	**-**	**-**	**-**	**-**	***3.596***
Support - Initial Spares and Repair Parts Cost																		
Initial Spares and Repair Parts	-	-	58.908	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Support - Initial Spares and Repair Parts Cost	**-**	**-**	***58.908***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Gross/Weapon System Cost	**62.262**	**995**	**61.951**	**35.713**	**108**	**3.857**	**21.059**	**185**	**3.896**	**-**	**-**	**3.596**	**-**	**-**	**-**	**-**	**-**	**3.596**

Secondary Distribution		FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Army	Quantity	81	185	-	-	-
	Total Obligation Authority	3.386	3.896	3.596	-	3.596
ANG	Quantity	16	-	-	-	-
	Total Obligation Authority	0.282	-	-	-	-
AR	Quantity	11	-	-	-	-

Exhibit P-5, Cost Analysis: PB 2022 Army		Date: May 2021
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:	

Secondary Distribution		FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
	Total Obligation Authority	0.189	-	-	-	-
Total: Secondary Distribution	**Quantity**	**108**	**185**	**-**	**-**	**-**
	Total Obligation Authority	**3.857**	**3.896**	**3.596**	**-**	**3.596**

Exhibit P-5, Cost Analysis: PB 2022 Army		Date: May 2021
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 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Procurement Quantity *(Units in Each)*	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	162.238	5.900	6.054	5.676	-	5.676
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	162.238	5.900	6.054	5.676	-	5.676
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**162.238**	**5.900**	**6.054**	**5.676**	**-**	**5.676**
(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 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 Total		
	Unit Cost *($ K)*	Qty *(Each)*	Total Cost *($ M)*	Unit Cost *($ K)*	Qty *(Each)*	Total Cost *($ M)*	Unit Cost *($ K)*	Qty *(Each)*	Total Cost *($ M)*	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)	-	-	45.367	-	-	0.032	-	-	0.050	-	-	-	-	-	-	-	-	-
Wideband Remote Monitoring Sensor (WRMS)	-	-	42.419	-	-	0.400	-	-	0.250	-	-	-	-	-	-	-	-	-
Modernization of Enterprise Terminals (MET)	-	-	67.969	-	-	4.086	-	-	3.782	-	-	-	-	-	-	-	-	-
Wideband Operational Mgmt System (WSOMS)	-	-	3.957	-	-	1.000	-	-	0.300	-	-	5.676	-	-	-	-	-	5.676
Replacement Patch Test Facility (RPTF)	-	-	0.032	-	-	-	-	-	0.075	-	-	-	-	-	-	-	-	-
Replacement Radio Frequency Interconnecting Subsystem (RRFIS)	-	-	0.363	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Global Terrestrial Critical Control Circuit System (GTC3S)	-	-	0.506	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Remote Monitoring and Control Equipment (RMCE)	-	-	0.402	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Exhibit P-5, Cost Analysis: PB 2022 Army		Date: May 2021
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 2020			FY 2021			FY 2022 Base			FY 2022 OCO			FY 2022 Total		
	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)	Unit Cost ($ K)	Qty (Each)	Total Cost ($ M)
Joint SATCOM Engineering Center (JSEC)	-	-	0.082	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Joint Management and Operations System (JMOS)	-	-	0.292	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Global Satellite Configuration Control Element (GSCCE)	-	-	0.232	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Common Network Planning System (CNPS)	-	-	0.507	-	-	0.200	-	-	0.380	-	-	-	-	-	-	-	-	-
Wideband Training and Certification System (WTCS)	-	-	0.110	-	-	0.182	-	-	0.499	-	-	-	-	-	-	-	-	-
Wideband Satellite Trending and Anomoly Resolution System (WSTARS)	-	-	-	-	-	-	-	-	0.418	-	-	-	-	-	-	-	-	-
Frequency Digital Multiple Access (FDMA) Modem	-	-	-	-	-	-	-	-	0.300	-	-	-	-	-	-	-	-	-
Subtotal: Recurring Cost	-	-	*162.238*	-	-	*5.900*	-	-	*6.054*	-	-	*5.676*	-	-	-	-	-	*5.676*
Subtotal: Flyaway Cost	**-**	**-**	***162.238***	**-**	**-**	***5.900***	**-**	**-**	***6.054***	**-**	**-**	***5.676***	**-**	**-**	**-**	**-**	**-**	***5.676***
Gross/Weapon System Cost	**-**	**-**	**162.238**	**-**	**-**	**5.900**	**-**	**-**	**6.054**	**-**	**-**	**5.676**	**-**	**-**	**-**	**-**	**-**	**5.676**

Remarks:
Spares are procured across multiple systems of sub-systems.

Secondary Distribution		FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Army	Quantity	-	-	-	-	-
	Total Obligation Authority	5.900	6.054	5.676	-	5.676
Total: Secondary Distribution	**Quantity**	**-**	**-**	**-**	**-**	**-**
	Total Obligation Authority	**5.900**	**6.054**	**5.676**	**-**	**5.676**