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**Department of Defense
Fiscal Year (FY) 2026 Budget Estimates**

June 2025



Army

Justification Book Volume 1c of 1

Research, Development, Test & Evaluation, Army
Budget Activity 3

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Army • Budget Estimates FY 2026 • RDT&E Program

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**RESEARCH, DEVELOPMENT, TEST AND EVALUATION, ARMY
APPROPRIATION LANGUAGE**

For expenses necessary for basic and applied scientific research, development, test and evaluation, including maintenance, rehabilitation, lease, and operation of facilities and equipment, \$15,395,757,000.00 to remain available for obligation until September 30, 2027.

The FY 2026 Overseas Operations accounted for in the base budget are as follows:

In-theater and in-CONUS expenses that remain after combat operations cease and have been previously funded in Overseas Operations \$3,201,000.00.

COST STATEMENT

The following Justification Books were prepared at a cost of \$301,924.00: 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, Other Procurement Army (OPA) 6 - Agile Portfolio Management, Research, Development, Test and Evaluation (RDTE) for: Budget Activity 1, Budget Activity 2, Budget Activity 3, Budget Activity 4, Budget Activity 5A, Budget Activity 5B, Budget Activity 6, Budget Activity 7, Budget Activity 8, and Budget Activity 9.

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FY 2026 RDT&E, ARMY PROGRAM ELEMENT DESCRIPTIVE SUMMARIES

Introduction and Explanation of Contents

1. **General.** The purpose of this document is to provide summary information concerning the Research, Development, Test and Evaluation, Army program. The descriptive summaries are comprised of R-2 (Army RDT&E Budget Item Justification – program element level), R-2A (Army RDT&E Budget Item Justification – project level), R-3 (Army RDT&E Cost Analysis), R-4 (Schedule Profile Detail) and R-5 (Termination Liability Funding for MDAPs) Exhibits, which provide narrative information on all RDT&E program elements and projects through FY 2026.
2. **Relationship of the FY 2026 Budget Submitted to Congress to the FY 2025 Budget Submitted to Congress.** This paragraph provides a list of program elements/projects that are major new starts and terminated programs. Explanations for these changes can be found in the narrative sections of the Program Element R-2A Exhibits.

New Start Programs:

<u><i>Budget Activity</i></u>	<u><i>OSDPE / Project</i></u>	<u><i>Project Title</i></u>
02	0602141A / DN6	Science of Massed Responsive Fires
02	0602147A / DM6	Cannon Fires Automation Research
02	0602150A / HP1	High Power Microwave Technology
02	0602180A / DM7	Counter AI App Rsch
02	0602180A / DM8	AI Enabled Contested Logistics Spt Tools App Tech
02	0602182A / DM9	Distributed Multi-Agent Reasoning and Data Fusion
02	0602184A / DN1	Directed Energy Biological Effects
02	0602184A / DN2	Joint Service Small Arms Enabling Tech
02	0602184A / DO1	Modernized Composites & Manufacturing
03	0603040A / DN3	AI Enabled Contested Logistics Spt Tools Adv Tech
03	0603044A / DN4	Joint Service Small Arms Adv Tech
03	0603044A / DO2	Modernized Composites & Manufacturing Adv Dev
03	0603464A / DM5	Affordable High Speed Strike
04	0603639A / DK7	155mm Artillery Propulsion Mod - Adv Component Dev
04	0603639A / DN7	Mobile Long Range Precision Strike Pgm (M-LRPSM)
05	0604270A / DN9	Modular Electro-Magnetic Spectrum Sys (MEMSS)
05	0604804A / H01	Combat Engineer Eq Ed

05	0604818A / DL8	Predictive Logistics
05	0604854A / DH7	Next Generation Howitzer
05	0605037A / DM1	Detainee Management, Accountability, and Reporting
09	0609277A / A83	Electronic Warfare Technology Maturation
09	0609277A / A85	EW-SIGINT Technology-Innovation Pipeline
09	0609278A / A92	Counter Surveillance Reconnaissance (CSR)

Program Terminations (including transfers to Procurement and Sustainment):

<u>Budget Activity</u>	<u>OSDPE / Project</u>	<u>Project Title</u>
02	0602141A / AH8	Lethality Materials and Processes Technology
02	0602181A / CM7	Collaborative Convergence Applied Research
02	0602182A / CX5	Sensing in Contested Environments Technologies
02	0602182A / DE6	Understanding Environment as a Threat Tech
02	0602183A / CL5	Air Platform Enabling University Applied Research
03	0603042A / CX9	Sensing in Contested Environments Adv Technologies
04	0604020A / DC8	Army Experimentation and Prototyping
05	0604641A / CF5	Robotic Combat Vehicle (BA5) NGCV-CFT
07	0205412A / EE6	Environmental Information Tech Modernization

3. **Classification:** This document contains no classified data. Appropriately cleared individuals can obtain further information on Classified/Special Access Programs by contacting the Department of the Army.

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Department of Defense
FY 2026 President's Budget
Exhibit R-1 FY 2026 President's Budget
Total Obligational Authority
(Dollars in Thousands)

Jun 2025

<u>Appropriation</u>	FY 2024 Actuals	FY 2025 Enacted	FY 2025 Supplemental	FY 2025 Total	FY 2026 Disc Request	FY 2026 Reconciliation Request	FY 2026 Total
Research, Development, Test and Evaluation, Army	17,119,530	14,322,031	41,400	14,363,431	14,549,223	846,534	15,395,757
Total Research, Development, Test, & Evaluation	17,119,530	14,322,031	41,400	14,363,431	14,549,223	846,534	15,395,757

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	FY 2024 Actuals	FY 2025 Enacted	FY 2025 Supplemental	FY 2025 Total	FY 2026 Disc Request	FY 2026 Reconciliation Request	FY 2026 Total
<u>Summary Recap of Budget Activities</u>							
Basic Research	528,659	505,156		505,156	486,544		486,544
Applied Research	1,690,089	1,162,089		1,162,089	860,545		860,545
Advanced Technology Development	2,333,689	1,696,216		1,696,216	1,240,191		1,240,191
Advanced Component Development & Prototypes	4,227,715	2,170,345		2,170,345	2,420,915	417,120	2,838,035
System Development & Demonstration	4,890,110	5,758,500		5,758,500	5,378,817	304,614	5,683,431
Management Support	2,109,102	1,741,185	41,400	1,782,585	1,956,082	103,000	2,059,082
Operational Systems Development	1,236,118	1,213,992		1,213,992	1,426,619	21,800	1,448,419
Software And Digital Technology Pilot Programs	104,048	74,548		74,548	89,238		89,238
Agile RDT&E Portfolio Management					690,272		690,272
Total Research, Development, Test, & Evaluation	17,119,530	14,322,031	41,400	14,363,431	14,549,223	846,534	15,395,757
<u>Summary Recap of FYDP Programs</u>							
General Purpose Forces	370,362	452,813		452,813	896,230		896,230
Intelligence and Communications	244,739	144,756		144,756	70,382		70,382
Research and Development	16,356,977	13,053,148	41,400	13,094,548	13,040,127	846,534	13,886,661
Central Supply and Maintenance	118,797	87,187		87,187	67,002		67,002
Administration and Associated Activities	669						
Classified Programs	27,986	584,127		584,127	475,482		475,482
Total Research, Development, Test, & Evaluation	17,119,530	14,322,031	41,400	14,363,431	14,549,223	846,534	15,395,757

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Appropriation: 2040A Research, Development, Test and Evaluation, Army

Line No	Program Element Number	Item	Act	Sec	FY 2024 Actuals	FY 2025 Enacted	FY 2025 Supplemental	FY 2025 Total	FY 2026 Disc Request	FY 2026 Reconciliation Request	FY 2026 Total
1	0601102A	Defense Research Sciences	01	U	322,341	297,680		297,680	237,678		237,678
2	0601103A	University Research Initiatives	01	U	72,781	78,166		78,166	78,947		78,947
3	0601104A	University and Industry Research Centers	01	U	117,872	113,476		113,476	69,391		69,391
4	0601121A	Cyber Collaborative Research Alliance	01	U	5,459	5,525		5,525	5,463		5,463
5	0601275A	Electronic Warfare Basic Research	01	U					88,053		88,053
6	0601601A	Artificial Intelligence and Machine Learning Basic Research	01	U	10,206	10,309		10,309	7,012		7,012
Basic Research					528,659	505,156		505,156	486,544		486,544
7	0602002A	Army Agile Innovation and Development-Applied Research	02	U	964	1,000		1,000	9,455		9,455
8	0602134A	Counter Improvised-Threat Advanced Studies	02	U	6,014	6,163		6,163	6,174		6,174
9	0602135A	Counter Small Unmanned Aerial Systems (C-SUAS) Applied Research	02	U					12,618		12,618
10	0602141A	Lethality Technology	02	U	145,375	128,659		128,659	97,157		97,157
11	0602142A	Army Applied Research	02	U	38,072						
12	0602143A	Soldier Lethality Technology	02	U	209,084	137,771		137,771	72,670		72,670
13	0602144A	Ground Technology	02	U	266,663	155,829		155,829	56,342		56,342
14	0602145A	Next Generation Combat Vehicle Technology	02	U	248,335	167,233		167,233	71,547		71,547
15	0602146A	Network C3I Technology	02	U	135,543	110,417		110,417	56,529		56,529
16	0602147A	Long Range Precision Fires Technology	02	U	96,154	67,589		67,589	25,744		25,744
17	0602148A	Future Verticle Lift Technology	02	U	104,850	52,350		52,350	20,420		20,420
18	0602150A	Air and Missile Defense Technology	02	U	102,784	49,188		49,188	25,992		25,992
19	0602180A	Artificial Intelligence and Machine Learning Technologies	02	U	23,702	20,319		20,319	13,745		13,745

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20	0602181A	All Domain Convergence Applied Research	02	U	13,775	12,269		12,269			
21	0602182A	C3I Applied Research	02	U	31,635	25,839		25,839	22,317		22,317
22	0602183A	Air Platform Applied Research	02	U	53,611	48,854		43,854	53,305		53,305
23	0602184A	Soldier Applied Research	02	U	17,622	14,131		14,131	27,597		27,597
24	0602213A	C3I Applied Cyber	02	U	20,664	28,656		23,656	4,716		4,716
25	0602275A	Electronic Warfare Applied Research	02	U					45,415		45,415
26	0602276A	Electronic Warfare Cyber Applied Research	02	U					17,102		17,102
27	0602345A	Unmanned Aerial Systems Launched Effects Applied Research	02	U					18,408		18,408
28	0602386A	Biotechnology for Materials - Applied Research	02	U	16,060	11,780		11,780	8,209		8,209
30	0602785A	Manpower/Personnel/Training Technology	02	U	19,667	19,795		19,795	17,191		17,191
31	0602787A	Medical Technology	02	U	139,515	68,481		68,481	143,293		143,293
999	999999999	Classified Programs	02	U		35,766		35,766	34,599		34,599
		Applied Research			1,690,089	1,162,089		1,162,089	860,545		860,545
32	0603002A	Medical Advanced Technology	03	U	18,730	8,112		8,112	1,860		1,860
33	0603007A	Manpower, Personnel and Training Advanced Technology	03	U	15,845	16,716		16,716	13,559		13,559
34	0603025A	Army Agile Innovation and Demonstration	03	U	25,513	14,608		14,608	19,679		19,679
35	0603040A	Artificial Intelligence and Machine Learning Advanced Technologies	03	U	23,909	30,263		30,263	20,487		20,487
36	0603041A	All Domain Convergence Advanced Technology	03	U	26,721	23,722		23,722	10,560		10,560
37	0603042A	C3I Advanced Technology	03	U	18,590	21,889		21,889	15,028		15,028

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38	0603043A	Air Platform Advanced Technology	03	U	13,648	17,076		17,076	41,266		41,266
39	0603044A	Soldier Advanced Technology	03	U	1,170	14,094		14,094	18,143		18,143
40	0603116A	Lethality Advanced Technology	03	U	70,529	49,629		49,629	13,232		13,232
41	0603117A	Army Advanced Technology Development	03	U	140,980						
42	0603118A	Soldier Lethality Advanced Technology	03	U	125,951	98,032		98,032	95,186		95,186
43	0603119A	Ground Advanced Technology	03	U	276,299	87,775		87,775	30,507		30,507
44	0603134A	Counter Improvised-Threat Simulation	03	U	20,965	21,398		21,398	15,692		15,692
45	0603135A	Counter Small Unmanned Aerial Systems (C-SUAS) Advanced Technology	03	U					7,773		7,773
46	0603275A	Electronic Warfare Advanced Technology	03	U					83,922		83,922
47	0603276A	Electronic Warfare Cyber Advanced Technology	03	U					15,254		15,254
48	0603345A	Unmanned Aerial Systems Launched Effects Advanced Technology Development	03	U					13,898		13,898
49	0603386A	Biotechnology for Materials - Advanced Research	03	U	57,686	36,360		36,360	24,683		24,683
50	0603457A	C3I Cyber Advanced Development	03	U	28,275	39,616		39,616	3,329		3,329
51	0603461A	High Performance Computing Modernization Program	03	U	246,739	239,597		239,597	241,855		241,855
52	0603462A	Next Generation Combat Vehicle Advanced Technology	03	U	433,324	254,662		254,662	141,301		141,301
53	0603463A	Network C3I Advanced Technology	03	U	214,351	142,224		142,224	78,539		78,539
54	0603464A	Long Range Precision Fires Advanced Technology	03	U	233,806	164,943		164,943	162,236		162,236

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55	0603465A	Future Vertical Lift Advanced Technology	03	U	219,137	175,369		175,369	66,686		66,686
56	0603466A	Air and Missile Defense Advanced Technology	03	U	98,784	61,333		61,333	23,330		23,330
58	0603920A	Humanitarian Demining	03	U	22,737	23,272		23,272	9,349		9,349
999	999999999	Classified Programs	03	U		155,526		155,526	72,837		72,837
	Advanced Technology Development				2,333,689	1,696,216		1,696,216	1,240,191		1,240,191
60	0603305A	Army Missile Defense Systems Integration	04	U	48,763	20,031		20,031	8,141		8,141
61	0603308A	Army Space Systems Integration	04	U	28,813	29,659		29,659	83,080		83,080
62	0603327A	Air and Missile Defense Systems Engineering	04	U	13,000	30,000		30,000			
63	0603619A	Landmine Warfare and Barrier - Adv Dev	04	U	60,202	60,617		60,617	41,516		41,516
64	0603639A	Tank and Medium Caliber Ammunition	04	U	90,139	102,027		102,027	85,472	100,000	185,472
65	0603645A	Armored System Modernization - Adv Dev	04	U	54,456	23,235		23,235	22,645		22,645
66	0603747A	Soldier Support and Survivability	04	U	3,420	4,059		4,059	4,033		4,033
67	0603766A	Tactical Electronic Surveillance System - Adv Dev	04	U	72,259	87,765		87,765	107,525		107,525
68	0603774A	Night Vision Systems Advanced Development	04	U	41,941	20,714		20,714	5,153		5,153
69	0603779A	Environmental Quality Technology - Dem/Val	04	U	19,369	23,299		23,299	11,343		11,343
70	0603790A	NATO Research and Development	04	U	3,987	4,184		4,184	5,031		5,031
71	0603801A	Aviation - Adv Dev	04	U	1,452,331	4,943		4,943			
72	0603804A	Logistics and Engineer Equipment - Adv Dev	04	U	22,846	19,995		19,995	15,435		15,435
73	0603807A	Medical Systems - Adv Dev	04	U	7,999	582		582	1,000		1,000

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74	0603827A	Soldier Systems - Advanced Development	04	U	41,551	24,284		24,284	41,856		41,856
75	0604017A	Robotics Development	04	U	2,912	13,039		13,039	35,082		35,082
76	0604019A	Expanded Mission Area Missile (EMAM)	04	U	109,752	83,516		83,516	178,137	99,000	277,137
77	0604020A	Cross Functional Team (CFT) Advanced Development & Prototyping	04	U	61,779	40,409		40,409			
78	0604035A	Low Earth Orbit (LEO) Satellite Capability	04	U	37,433	21,935		21,935	17,063		17,063
79	0604036A	Multi-Domain Sensing System (MDSS) Adv Dev	04	U	185,831	188,228		188,228	239,813		239,813
80	0604037A	Tactical Intel Targeting Access Node (TITAN) Adv Dev	04	U	10,626	4,317		4,317	3,092		3,092
81	0604100A	Analysis Of Alternatives	04	U	10,690	11,234		11,234	9,865		9,865
82	0604101A	Small Unmanned Aerial Vehicle (SUAV) (6.4)	04	U	4,956	1,800		1,800			
83	0604103A	Electronic Warfare Planning and Management Tool (EWPMT)	04	U	2,260	2,004		2,004			
84	0604113A	Future Tactical Unmanned Aircraft System (FTUAS)	04	U	67,143	127,870		127,870			
85	0604114A	Lower Tier Air Missile Defense (LTAMD) Sensor	04	U	511,014	127,428		127,428	196,448	14,000	210,448
86	0604115A	Technology Maturation Initiatives	04	U	244,710	252,000		252,000	267,619		267,619
87	0604117A	Maneuver - Short Range Air Defense (M-SHORAD)	04	U	290,256	274,542		274,542	238,247	60,120	298,367
88	0604119A	Army Advanced Component Development & Prototyping	04	U	204,914						
89	0604120A	Assured Positioning, Navigation and Timing (PNT)	04	U	39,223	24,168		24,168	8,686		8,686
90	0604121A	Synthetic Training Environment Refinement & Prototyping	04	U	115,519	115,140		115,140	240,899		240,899

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91	0604134A	Counter Improvised-Threat Demonstration, Prototype Development, and Testing	04	U	15,826	17,341		17,341	5,491		5,491
92	0604135A	Strategic Mid-Range Fires	04	U	25,342				231,401		231,401
93	0604182A	Hypersonics	04	U	201,193				25,000		25,000
94	0604386A	Biotechnology for Materials - Dem/Val	04	U		10,651		10,651			
95	0604403A	Future Interceptor	04	U	3,899	8,058		8,058	8,019	144,000	152,019
97	0604531A	Counter - Small Unmanned Aircraft Systems Advanced Development	04	U	54,854	79,983		79,983	45,281		45,281
99	0604541A	Unified Network Transport	04	U	47,233	31,837		31,837	29,191		29,191
100	0305251A	Cyberspace Operations Forces and Force Support	04	U	74	2,270		2,270	5,605		5,605
999	999999999	Classified Programs	04	U	19,200	277,181		277,181	203,746		203,746
	Advanced Component Development & Prototypes				4,227,715	2,170,345		2,170,345	2,420,915	417,120	2,838,035
101	0604201A	Aircraft Avionics	05	U	21,173	7,171		7,171	2,696		2,696
102	0604270A	Electronic Warfare Development	05	U	12,310	33,247		33,247	9,153		9,153
103	0604601A	Infantry Support Weapons	05	U	80,777	57,686		57,686	56,553		56,553
104	0604604A	Medium Tactical Vehicles	05	U	17,561	3,565		3,565	18,503		18,503
105	0604611A	JAVELIN	05	U	7,541	10,405		10,405	9,810		9,810
106	0604622A	Family of Heavy Tactical Vehicles	05	U	40,175	34,690		34,690	47,064		47,064
107	0604633A	Air Traffic Control	05	U	11,093	982		982			
108	0604641A	Tactical Unmanned Ground Vehicle (TUGV)	05	U	136,937	92,540		92,540			
109	0604642A	Light Tactical Wheeled Vehicles	05	U	3,394	3,000		3,000			
110	0604645A	Armored Systems Modernization (ASM) - Eng Dev	05	U	95,580	48,097		48,097	16,593		16,593
111	0604710A	Night Vision Systems - Eng Dev	05	U	145,135	139,309		139,309	351,274		351,274

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112	0604713A	Combat Feeding, Clothing, and Equipment	05	U	2,170	3,286		3,286	5,654		5,654
113	0604715A	Non-System Training Devices - Eng Dev	05	U	20,585	28,427		28,427	19,063		19,063
114	0604741A	Air Defense Command, Control and Intelligence - Eng Dev	05	U	86,990	73,653		73,653	13,892		13,892
115	0604742A	Constructive Simulation Systems Development	05	U	29,854	30,097		30,097	7,790		7,790
116	0604746A	Automatic Test Equipment Development	05	U	13,129	12,927		12,927	9,512		9,512
117	0604760A	Distributive Interactive Simulations (DIS) - Eng Dev	05	U	8,481	8,914		8,914	7,724		7,724
118	0604798A	Brigade Analysis, Integration and Evaluation	05	U	21,750	26,352		26,352	24,318		24,318
119	0604802A	Weapons and Munitions - Eng Dev	05	U	270,231	251,949		251,949	150,344		150,344
120	0604804A	Logistics and Engineer Equipment - Eng Dev	05	U	58,554	46,829		46,829	50,194		50,194
121	0604805A	Command, Control, Communications Systems - Eng Dev	05	U	47,965	92,300		92,300	63,725		63,725
122	0604807A	Medical Materiel/Medical Biological Defense Equipment - Eng Dev	05	U	10,984	7,143		7,143	6,252		6,252
123	0604808A	Landmine Warfare/Barrier - Eng Dev	05	U	33,085	54,134		54,134	9,862		9,862
124	0604818A	Army Tactical Command & Control Hardware & Software	05	U	154,317	134,162		134,162	430,895	2,430	433,325
125	0604820A	Radar Development	05	U	78,363	41,584		41,584	53,226	18,000	71,226
126	0604822A	General Fund Enterprise Business System (GFEBS)	05	U	16,011	1,995		1,995			
127	0604827A	Soldier Systems - Warrior Dem/Val	05	U	18,892	29,132		29,132	4,137		4,137
128	0604852A	Suite of Survivability Enhancement Systems - EMD	05	U	70,384	77,864		77,864	76,903		76,903

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129	0604854A	Artillery Systems - EMD	05	U	45,939	42,479		42,479	80,862		80,862
130	0605013A	Information Technology Development	05	U	96,090	102,704		102,704	125,701		125,701
131	0605018A	Integrated Personnel and Pay System-Army (IPPS-A)	05	U	86,914	121,354		121,354	164,600		164,600
132	0605030A	Joint Tactical Network Center (JTNC)	05	U	17,981	20,191		20,191	20,954		20,954
133	0605031A	Joint Tactical Network (JTN)	05	U	29,221	31,214		31,214	41,696		41,696
134	0605035A	Common Infrared Countermeasures (CIRCM)	05	U	10,959	11,691		11,691	10,789		10,789
135	0605036A	Combating Weapons of Mass Destruction (CWMD)	05	U	1,012	7,846		7,846	13,322		13,322
136	0605037A	Evidence Collection and Detainee Processing	05	U					4,619		4,619
137	0605038A	Nuclear Biological Chemical Reconnaissance Vehicle (NBCRV) Sensor Suite	05	U		7,886		7,886	13,459		13,459
138	0605041A	Defensive CYBER Tool Development	05	U	13,386	4,176		4,176	3,611		3,611
139	0605042A	Tactical Network Radio Systems (Low-Tier)	05	U	4,160	4,288		4,288	3,222		3,222
140	0605047A	Contract Writing System	05	U	12,390	9,276		9,276	8,101		8,101
141	0605049A	Missile Warning System Modernization (MWSM)	05	U	19,508						
142	0605051A	Aircraft Survivability Development	05	U	23,991	38,225		38,225	44,182		44,182
143	0605052A	Indirect Fire Protection Capability Inc 2 - Block 1	05	U	172,705	140,912		140,912	248,659		248,659
144	0605053A	Ground Robotics	05	U	26,704	28,378		28,378	227,038		227,038
145	0605054A	Emerging Technology Initiatives	05	U	115,356	126,658		126,658	57,546	87,000	144,546
146	0605144A	Next Generation Load Device - Medium	05	U	36,970	2,931		2,931	24,492		24,492

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147	0605148A	Tactical Intel Targeting Access Node (TITAN) EMD	05	U	128,784	149,112		149,112	44,273		44,273
148	0605203A	Army System Development & Demonstration	05	U	81,657						
149	0605205A	Small Unmanned Aerial Vehicle (SUAV) (6.5)	05	U	20,865	24,474		24,474			
150	0605206A	CI and HUMINT Equipment Program-Army (CIHEP-A)	05	U	2,170	1,296		1,296			
151	0605216A	Joint Targeting Integrated Command and Coordination Suite (JTIC2S)	05	U	8,951	21,415		21,415			
152	0605224A	Multi-Domain Intelligence	05	U	23,605	18,913		18,913	34,844		34,844
153	0605231A	Precision Strike Missile (PrSM)	05	U	262,829	184,046		184,046		197,184	197,184
154	0605232A	Hypersonics EMD	05	U	772,174	469,775		469,775	513,027		513,027
155	0605233A	Accessions Information Environment (AIE)	05	U	26,362	32,265		32,265	32,710		32,710
156	0605235A	Strategic Mid-Range Capability	05	U	255,121	182,823		182,823	186,304		186,304
157	0605236A	Integrated Tactical Communications	05	U	18,065	12,224		12,224	22,732		22,732
158	0605241A	Future Long Range Assault Aircraft Development	05	U		1,253,637		1,253,637	1,248,544		1,248,544
159	0605242A	Theater SIGINT System (TSIGS)	05	U		3,660		3,660			
160	0605244A	Joint Reduced Range Rocket (JR3)	05	U		13,565		13,565	28,893		28,893
161	0605247A	Spectrum Situational Awareness System (S2AS)	05	U		4,665		4,665			
162	0605450A	Joint Air-to-Ground Missile (JAGM)	05	U	2,904	3,030		3,030			
163	0605457A	Army Integrated Air and Missile Defense (AIAMD)	05	U	285,411	587,068		587,068	146,056		146,056
164	0605531A	Counter - Small Unmanned Aircraft Systems Sys Dev & Demonstration	05	U	34,701	59,563		59,563	55,196		55,196
166	0605625A	Manned Ground Vehicle	05	U	565,047	499,478		499,478	386,393		386,393

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167	0605766A	National Capabilities Integration (MIP)	05	U	15,129	16,565		16,565	16,913		16,913
168	0605812A	Joint Light Tactical Vehicle (JLTV) Engineering and Manufacturing Development Phase (EMD)	05	U					2,664		2,664
169	0605830A	Aviation Ground Support Equipment	05	U	1,124	979		979	930		930
170	0303032A	TROJAN - RH12	05	U	3,879	3,930		3,930	3,920		3,920
171	0303767A	AMBIT - Pre-Auctioned SRF	05	U	20,791						
172	0304270A	Electronic Warfare Development	05	U	133,834	81,232		81,232			
999	999999999	Classified Programs	05	U		83,136		83,136	117,428		117,428
	System Development & Demonstration				4,890,110	5,758,500		5,758,500	5,378,817	304,614	5,683,431
173	0604256A	Threat Simulator Development	06	U	71,587	75,298		75,298	74,767		74,767
174	0604258A	Target Systems Development	06	U	33,940	27,788		27,788	16,004		16,004
175	0604759A	Major T&E Investment	06	U	87,687	98,613		98,613	101,027		101,027
176	0605103A	Rand Arroyo Center	06	U	35,312	38,122		38,122	10,892		10,892
177	0605301A	Army Kwajalein Atoll	06	U	341,771	321,755	41,400	363,155	379,283		379,283
178	0605326A	Concepts Experimentation Program	06	U	86,765	80,845		80,845	58,606		58,606
179	0605502A	Small Business Innovative Research	06	U	409,981						
180	0605601A	Army Test Ranges and Facilities	06	U	441,173	466,085		466,085	425,108		425,108
181	0605602A	Army Technical Test Instrumentation and Targets	06	U	45,679	74,004		74,004	69,328		69,328
182	0605604A	Survivability/Lethality Analysis	06	U	37,005	36,815		36,815	31,306		31,306
183	0605606A	Aircraft Certification	06	U	2,718	2,201		2,201	1,887		1,887
184	0605706A	Materiel Systems Analysis	06	U	23,402	23,338		23,338	19,100		19,100
185	0605709A	Exploitation of Foreign Items	06	U	7,805	6,245		6,245	6,277		6,277

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186	0605712A	Support of Operational Testing	06	U	74,128	76,088		76,088	63,637		63,637
187	0605716A	Army Evaluation Center	06	U	71,118	73,220		73,220	62,343		62,343
188	0605718A	Army Modeling & Sim X-Cmd Collaboration & Integ	06	U	6,136	11,257		11,257	11,825		11,825
189	0605801A	Programwide Activities	06	U	86,384	91,895		91,895	54,172		54,172
190	0605803A	Technical Information Activities	06	U	30,422	32,385		32,385	26,592		26,592
191	0605805A	Munitions Standardization, Effectiveness and Safety	06	U	56,069	50,766		50,766	44,465		44,465
192	0605857A	Environmental Quality Technology Mgmt Support	06	U	1,570	1,659		1,659	2,857		2,857
193	0605898A	Army Direct Report Headquarters - R&D - MHA	06	U	55,497	59,727		59,727	53,436		53,436
194	0606002A	Ronald Reagan Ballistic Missile Defense Test Site	06	U	89,911	73,400		73,400	72,302		72,302
195	0606003A	CounterIntel and Human Intel Modernization	06	U	6,348	9,574		9,574	5,660		5,660
196	0606118A	AIAMD Software Development & Integration	06	U					358,854	103,000	461,854
197	0606942A	Assessments and Evaluations Cyber Vulnerabilities	06	U	6,025	10,105		10,105	6,354		6,354
198	0909999A	Financing for Cancelled Account Adjustments	06	U	669						
	Management Support				2,109,102	1,741,185	41,400	1,782,585	1,956,082	103,000	2,059,082
199	0603778A	MLRS Product Improvement Program	07	U	13,937	14,188		14,188	14,639		14,639
200	0605024A	Anti-Tamper Technology Support	07	U	7,274	7,489		7,489	6,449		6,449
201	0607101A	Combating Weapons of Mass Destruction (CWMD) Product Improvement	07	U		271		271	115		115
202	0607131A	Weapons and Munitions Product Improvement Programs	07	U	61,735	31,563		31,563	13,687		13,687

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203	0607136A	Blackhawk Product Improvement Program	07	U	40,923	125,000		125,000	23,998		23,998
204	0607137A	Chinook Product Improvement Program	07	U	20,386	4,816		4,816	10,859		10,859
205	0607139A	Improved Turbine Engine Program	07	U	182,204	130,029		130,029			
206	0607142A	Aviation Rocket System Product Improvement and Development	07	U	2,904						
207	0607143A	Unmanned Aircraft System Universal Products	07	U	24,466	24,539		24,539			
208	0607145A	Apache Future Development	07	U	44,762	8,243		8,243	44,371		44,371
209	0607148A	AN/TPQ-53 Counterfire Target Acquisition Radar System	07	U	52,190	53,652		53,652	43,054		43,054
210	0607150A	Intel Cyber Development	07	U	4,345	9,753		9,753	13,129		13,129
211	0607212A	TENCAP Enhancements	07	U						6,800	6,800
212	0607312A	Army Operational Systems Development	07	U	19,000						
213	0607313A	Electronic Warfare Development	07	U	6,389	5,559		5,559			
215	0607665A	Family of Biometrics	07	U	768	590		590	1,594		1,594
216	0607865A	Patriot Product Improvement	07	U	170,729	168,458		168,458	183,763	15,000	198,763
217	0203728A	Joint Automated Deep Operation Coordination System (JADOCS)	07	U	37,535	27,582		27,582	8,424		8,424
218	0203735A	Combat Vehicle Improvement Programs	07	U	223,719	326,579		326,579	744,085		744,085
219	0203743A	155mm Self-Propelled Howitzer Improvements	07	U	22,066	47,870		47,870	107,826		107,826
220	0203752A	Aircraft Engine Component Improvement Program	07	U	146	142		142	237		237
221	0203758A	Digitization	07	U	1,460	1,562		1,562	1,013		1,013
222	0203801A	Missile/Air Defense Product Improvement Program	07	U	4,203	1,511		1,511	1,338		1,338

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223	0203802A	Other Missile Product Improvement Programs	07	U	9,677	26,708		26,708			
224	0205412A	Environmental Quality Technology - Operational System Dev	07	U	271	269		269			
225	0205778A	Guided Multiple-Launch Rocket System (GMLRS)	07	U	70,808	20,590		20,590	33,307		33,307
226	0208053A	Joint Tactical Ground System	07	U	477						
229	0303028A	Security and Intelligence Activities	07	U	16,290						
230	0303140A	Information Systems Security Program	07	U	15,323	15,733		15,733	15,040		15,040
231	0303141A	Global Combat Support System	07	U	12,605	2,566		2,566			
232	0303142A	SATCOM Ground Environment (SPACE)	07	U	25,858	26,643		26,643	35,720		35,720
235	0305179A	Integrated Broadcast Service (IBS)	07	U	9,456	5,701		5,701	6,653		6,653
236	0305219A	MQ-1 Gray Eagle UAV	07	U	6,629	6,681		6,681	3,444		3,444
237	0708045A	End Item Industrial Preparedness Activities	07	U	118,797	87,187		87,187	67,002		67,002
999	999999999	Classified Programs	07	U	8,786	32,518		32,518	46,872		46,872
	Operational Systems Development				1,236,118	1,213,992		1,213,992	1,426,619	21,800	1,448,419
238	0608041A	Defensive CYBER - Software Prototype Development	08	U	104,048	74,548		74,548	89,238		89,238
	Software And Digital Technology Pilot Programs				104,048	74,548		74,548	89,238		89,238
239	0609135A	Counter Unmanned Aerial Systems (UAS) Agile Development	09	U					143,618		143,618
240	0609277A	Electronic Warfare Agile Development	09	U					127,081		127,081
241	0609278A	Electronic Warfare Agile Systems Development	09	U					59,202		59,202
242	0609345A	Unmanned Aerial Systems Launched Effects Agile Systems Development	09	U					187,473		187,473

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243	0609346A	UAS Launched Effects Agile Development	09	U					172,898		172,898
		Agile RDT&E Portfolion Management							690,272		690,272
Total Research, Development, Test and Evaluation, Army					17,119,530	14,322,031	41,400	14,363,431	14,549,223	846,534	15,395,757

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*All figures in this exhibit are for the FY 2026 discretionary appropriations
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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Army	Date: June 2025
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Appropriation/Budget Activity 2040: <i>Research, Development, Test & Evaluation, Army / BA 3: Advanced Technology Development (ATD)</i>	R-1 Program Element (Number/Name) PE 0603002A / <i>Medical Advanced Technology</i>											
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
Total Program Element	-	18.730	8.112	1.860	-	1.860	-	-	-	-	-	-
MM2: <i>MEDICAL ADVANCE TECHNOLOGY INITIATIVES (CA)</i>	-	14.734	5.000	-	-	-	-	-	-	-	-	-
MM7: <i>Enabling Med Cap to Support Dispersed OPS Adv Tech</i>	-	0.825	1.038	0.917	-	0.917	-	-	-	-	-	-
MN7: <i>Musculoskeletal Injury Screening Tool Adv Tech</i>	-	0.734	0.829	0.482	-	0.482	-	-	-	-	-	-
MO8: <i>Expeditionary Performance Nutrition Advanced Techn</i>	-	0.705	0.164	0.106	-	0.106	-	-	-	-	-	-
MP3: <i>Phys Chem Toxicity Assessment Sys Adv Tech</i>	-	1.732	1.081	0.355	-	0.355	-	-	-	-	-	-

A. Mission Description and Budget Item Justification

This Program Element (PE) matures and demonstrates advanced medical technologies including drugs, medical devices, and developing medical practices and procedures to effectively protect and improve the survivability of United States Forces across the entire spectrum of military operations. Successful completion of efforts relies on tri-Service coordination and cooperation.

Promising medical technologies are refined and validated through extensive testing, which is conducted in compliance with Food and Drug Administration (FDA) regulations for human medical products, and Environmental Protection Agency (EPA) regulations for insect-control products that impact humans or the environment (e.g., repellents and insecticides). The FDA requires medical products to undergo extensive preclinical testing in animals and/or other models to obtain preliminary effectiveness and safety information before they can be tested in human clinical trials. Clinical trials are conducted stepwise: first to prove the product is safe in humans, second to demonstrate the desired effectiveness and optimal dosage (amount to be administered) in a small group human study, and third to demonstrate effectiveness in large, diverse human populations. Each successive phase includes larger numbers of human subjects and requires FDA cognizance prior to proceeding. Work conducted in this PE primarily focuses on late stages of technology maturation activities required to conduct safety and effectiveness clinical trials. Some high-risk technologies may require additional maturation with FDA guidance prior to initiating these clinical trials. Such things as proof of product stability and purity are necessary to meet FDA standards before entering later stages of testing and prior to transitioning into a formal acquisition program where large pivotal trials in diverse populations will be conducted for licensure. Activities in this PE may include completion of preclinical animal studies and small safety and effectiveness studies involving humans according to FDA and EPA requirements. Promising medical technologies that are not regulated by the FDA or EPA are modeled, prototyped, and tested in relevant environments.

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Army			Date: June 2025			
Appropriation/Budget Activity 2040: Research, Development, Test & Evaluation, Army / BA 3: Advanced Technology Development (ATD)		R-1 Program Element (Number/Name) PE 0603002A / Medical Advanced Technology				
<p>Blast research and research into maturing field rations in this PE are fully coordinated with the United States Army Combat Capabilities Development Command Soldier Center. This coordination enables improved body armor design and rations for Soldiers. Additionally, the activities funded in this PE are externally peer reviewed and fully coordinated with all Services as well as other agencies through the Joint Technology Coordinating Groups of the Armed Services Biomedical Research Evaluation and Management (ASBREM) Community of Interest (COI). The ASBREM COI, formed under the authority of the Under Secretary of Defense for Research and Engineering, serves to facilitate coordination and prevent unnecessary duplication of effort within the Department of Defense's biomedical research and development community, as well as its associated enabling research areas.</p> <p>The cited research is consistent with the Under Secretary of Defense (Research and Engineering) Science and Technology (S&T) focus areas and the Army Modernization Strategy.</p> <p>The FY 2026 request was reduced by \$0.059 million for Advisory and Assistance Services to promote efficiencies and advance the policies of the Administration in alignment with Executive Order 14222, "Implementing the President's Department of Government Efficiency Cost Efficiency Initiative."</p> <p>The FY 2026 request was reduced by \$0.01 million for civilian personnel to optimize the workforce in compliance with Executive Order 14210, "Implementing the President's Department of Government Efficiency Workforce Optimization Initiative."</p>						
B. Program Change Summary (\$ in Millions)		FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total
Previous President's Budget		4.147	3.112	2.046	-	2.046
Current President's Budget		18.730	8.112	1.860	-	1.860
Total Adjustments		14.583	5.000	-0.186	-	-0.186
• Congressional General Reductions		-	-			
• Congressional Directed Reductions		-	-			
• Congressional Rescissions		-	-			
• Congressional Adds		19.734	5.000			
• Congressional Directed Transfers		-	-			
• Reprogrammings		-4.999	-			
• SBIR/STTR Transfer		-0.152	-			
• Adjustments to Budget Years		-	-	-0.186	-	-0.186
Congressional Add Details (\$ in Millions, and Includes General Reductions)					FY 2024	FY 2025
Project: MM2: MEDICAL ADVANCE TECHNOLOGY INITIATIVES (CA)						
Congressional Add: Hearing protection for communications					8.000	-
Congressional Add: Novel strategies to prevent infection in severe fractures					4.734	-
Congressional Add: Suicide prevention with a focus on rural, remote, isolated, and OCONUS installations					2.000	-

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Army		Date: June 2025	
Appropriation/Budget Activity 2040: Research, Development, Test & Evaluation, Army / BA 3: Advanced Technology Development (ATD)		R-1 Program Element (Number/Name) PE 0603002A / Medical Advanced Technology	
Congressional Add Details (\$ in Millions, and Includes General Reductions)		FY 2024	FY 2025
Congressional Add: Development of medical prophylaxis against radiological and nuclear threats		-	5.000
Congressional Add Subtotals for Project: MM2		14.734	5.000
Congressional Add Totals for all Projects		14.734	5.000
Change Summary Explanation Decrease in funding due to a slight decrease in projected cost for advanced medical technologies including drugs, vaccines, medical diagnostic devices.			

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army										Date: June 2025		
Appropriation/Budget Activity 2040 / 3					R-1 Program Element (Number/Name) PE 0603002A / Medical Advanced Technology				Project (Number/Name) MM2 / MEDICAL ADVANCE TECHNOLOGY INITIATIVES (CA)			
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
MM2: MEDICAL ADVANCE TECHNOLOGY INITIATIVES (CA)	-	14.734	5.000	-	-	-	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Congressional Interest Item funding for Medical Advanced Technology Initiatives.

The cited work is consistent with the Under Secretary of Defense for Research and Engineering priority focus areas and the Army Modernization Strategy.

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2024	FY 2025
Congressional Add: Hearing protection for communications	8.000	-
FY 2024 Accomplishments: This program is a study of the perception and propagation of sound through bone conduction. During the study, a battery of auditory tasks were conducted to determine if bone conduction communications can be used to increase the effectiveness of communication. Additionally, it was determined that bone conduction communications, if used in conjunction with PPE (personal protective equipment), can reduce harmful sounds from reaching the inner ear while allowing for intended communications.		
Congressional Add: Novel strategies to prevent infection in severe fractures	4.734	-
FY 2024 Accomplishments: This program is a study of infection rates among two samples within a population. One sample was provided antibiotic, and the other was provided a version similar to a placebo. Both samples had open tibia fractures and were at high risk of infection. This study observed the infection rates among the population to determine the efficacy of the antibiotic. Results of this study can be applied to allow members to return to service sooner and to have a lower rate of disability.		
Congressional Add: Suicide prevention with a focus on rural, remote, isolated, and OCONUS installations	2.000	-
FY 2024 Accomplishments: This program set to collect data on service members regarding their mental health and experiences. It identified strategic improvements that can be implemented to improve suicide prevention services and interventions. Command and community level resources and support structures were assessed to find if risk and protective factors could be modified to improve well-being of members.		
Congressional Add: Development of medical prophylaxis against radiological and nuclear threats	-	5.000

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army		Date: June 2025
Appropriation/Budget Activity 2040 / 3	R-1 Program Element (Number/Name) PE 0603002A / Medical Advanced Technology	Project (Number/Name) MM2 / MEDICAL ADVANCE TECHNOLOGY INITIATIVES (CA)
B. Accomplishments/Planned Programs (\$ in Millions)		
	FY 2024	FY 2025
FY 2025 Plans: Congressional Interest Item for development of medical prophylaxis against radiological and nuclear threats.		
Congressional Adds Subtotals		14.734 5.000
C. Other Program Funding Summary (\$ in Millions)		
N/A		
Remarks		
D. Acquisition Strategy		
N/A		

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army										Date: June 2025		
Appropriation/Budget Activity 2040 / 3					R-1 Program Element (Number/Name) PE 0603002A / Medical Advanced Technology				Project (Number/Name) MM7 / Enabling Med Cap to Support Dispersed OPS Adv Tech			
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
MM7: Enabling Med Cap to Support Dispersed OPS Adv Tech	-	0.825	1.038	0.917	-	0.917	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note

Future En Route Casualty Care Sustainment Cap Set is a new start effort in FY 2026.

A. Mission Description and Budget Item Justification

Matures and demonstrates a tele-monitored and remote-controlled Combat Evacuation Mission Module to support medical resupply and casualty evacuation using future multi-purpose Vertical Take-Off and Landing (VTOL) unmanned aircraft systems (UAS). Provides a self-contained medical module capability adaptable to various future multi- purpose VTOL UAS. Matures and demonstrates an intelligent decision-support capability that can be operated on an Army or Navy provided End User Device (EUD), such as the NETT Warrior system, to assist medics with patient assessment, triage, treatment, and disposition in a Prolonged Field Care (PFC) environment by assessing patient conditions to provide adaptive care guidelines.

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2024	FY 2025	FY 2026
Title: Develop Prototype Medical Robotic and Autonomous System (Med-RAS)	0.825	1.038	-
Description: Matures and demonstrates a tele-monitored and remote-controlled Combat Evacuation Mission Module to support medical resupply and casualty evacuation using future multi-purpose VTOL UAS. Provides a self-contained medical module capability adaptable to various future multi- purpose VTOL UAS. Matures and demonstrates an intelligent decision-support capability that can be operated on an Army or Navy provided EUD, such as the NETT Warrior system, to assist medics with patient assessment, triage, treatment, and disposition in a PFC environment by assessing patient conditions to provide adaptive care guidelines.			
FY 2025 Plans: Continue work to mature the Combat Evacuation Mission Module (CEMM) conceptual designs and physical prototypes of the Multi-Mission Vehicle Interface (MMVI) component. Evaluate MMVI subsystem prototype in critical design review. Perform systematic review of associated Safe Transport and Evacuation Protocols System (STEPS) flight control interface system component. Demonstrate technical functionality and advance the communication infrastructure towards an optimal multipurpose system.			

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army		Date: June 2025		
Appropriation/Budget Activity 2040 / 3	R-1 Program Element (Number/Name) PE 0603002A / <i>Medical Advanced Technology</i>	Project (Number/Name) MM7 / <i>Enabling Med Cap to Support Dispersed OPS Adv Tech</i>		
B. Accomplishments/Planned Programs (\$ in Millions)				
Demonstrate proof-of-concept 3D audio display interface with simulated Intercommunications System (ICS). FY 2025 to FY 2026 Increase/Decrease Statement: Funding decrease reflects realignment of funds within Project MM7/Enabling Med Cap to Support Dispersed OPS Adv Tech, shifting funds from "Develop Prototype Medical Robotic and Autonomous System (Med-RAS)" effort to "Future En Route Casualty Care Sustainment Cap Set" effort within the same project.		FY 2024	FY 2025	FY 2026
Title: Future En Route Casualty Care Sustainment Cap Set Description: This effort performs advanced technology development of methods, materiel, and semi-autonomous / autonomous technologies to increase capability, capacity, and number of patients moved within the Military Health System. Technology solutions include methods and materiel to physically and/or cognitively offload the medical en route care provider for high volume patient load and long haul or hold. FY 2026 Plans: Will develop proof-of-concept system integrating medical device alarms from multiple pieces of en route care medical equipment into the Flight Medic's communication system, isolated from other communications systems within the aircraft, and will evaluate the system's ability to improve the level of care provided by the Flight Medic when treating multiple MEDEVAC patients. FY 2025 to FY 2026 Increase/Decrease Statement: Funding increase reflects initiation of Future En Route Casualty Care Sustainment Cap Set. Funding realigned from Develop Prototype Medical Robotic and Autonomous System (Med-RAS) within this Project.		-	-	0.917
Accomplishments/Planned Programs Subtotals		0.825	1.038	0.917
C. Other Program Funding Summary (\$ in Millions) N/A Remarks D. Acquisition Strategy N/A				

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army										Date: June 2025		
Appropriation/Budget Activity 2040 / 3					R-1 Program Element (Number/Name) PE 0603002A / Medical Advanced Technology				Project (Number/Name) MN7 / Musculoskeletal Injury Screening Tool Adv Tech			
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
MN7: Musculoskeletal Injury Screening Tool Adv Tech	-	0.734	0.829	0.482	-	0.482	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This Project develops strategies and technologies to reduce musculoskeletal injury (MSKI) rates and improve outcomes following Return to Duty (RTD) in the Army training, operational, and medical communities to improve Soldier readiness. This research will inform the development of technologies and strategies to detect and provide actionable information to unit leader/Soldier about hazardous exposure to blast and head impact. This capability will help prevent degradation to Soldier cognitive readiness and performance and enhance combat power.

The cited research is fully coordinated with Program Element (PE) 0602143A (Soldier Lethality Technology) and complimentary to PE 0603118A (Soldier Lethality Advanced Technology) and is fully coordinated with the Army Training and Doctrine Command (TRADOC) and other Services in order to avoid duplication of effort.

The cited work is consistent with the Under Secretary of Defense (Research and Engineering) science and technology focus areas and the Army Modernization Strategy.

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2024	FY 2025	FY 2026
Title: Leader and Medical Provider Tools to Prevent and Reduce Musculoskeletal Injury in All Settings	0.734	0.829	0.482
Description: Project validates in field environment strategies and technologies to reduce MSKI rates and improve outcomes following RTD in the Army training, operational, and medical communities to improve Soldier readiness. Validate physiological, sensory, and brain health algorithms for improved PPE testing and evaluation and the development of tools to monitor the health effects of blast overpressure exposure.			
FY 2025 Plans: Continue to validate and transition musculoskeletal injury risk and performance degrading prediction tools that can be used to inform interventions for injury resilience and readiness. Validate brain and lung injury risk criteria to evaluate bomb suit effectiveness for protecting Warfighters (male and female) in all military operational environments (e.g. SubT, underwater, open air) against emerging multi- threats.			
FY 2026 Plans: Leverage outcomes in Musculoskeletal Injury (ARMI) study to validate and translate musculoskeletal injury risk and performance degrading prediction tools, as well as strategies to optimize physical readiness to provide evidence-based recommendations for			

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army		Date: June 2025		
Appropriation/Budget Activity 2040 / 3	R-1 Program Element (Number/Name) PE 0603002A / Medical Advanced Technology	Project (Number/Name) MN7 / Musculoskeletal Injury Screening Tool Adv Tech		
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2024	FY 2025	FY 2026
injury resilience and readiness. Validate test methodologies for blast mitigation potential of PPE systems utilizing updated health effects and injury thresholds. Begin validation of damage risk criteria for impulse noise exposure.				
FY 2025 to FY 2026 Increase/Decrease Statement: Funding decrease reflects providing the final recommendations ahead of schedule, resulting in the ability to focus on prediction tools and evidence - based recommendations.				
Accomplishments/Planned Programs Subtotals		0.734	0.829	0.482
C. Other Program Funding Summary (\$ in Millions) N/A				
Remarks				
D. Acquisition Strategy N/A				

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army										Date: June 2025		
Appropriation/Budget Activity 2040 / 3					R-1 Program Element (Number/Name) PE 0603002A / Medical Advanced Technology				Project (Number/Name) MO8 / Expeditionary Performance Nutrition Advanced Techn			
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
MO8: Expeditionary Performance Nutrition Advanced Techn	-	0.705	0.164	0.106	-	0.106	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		
A. Mission Description and Budget Item Justification <p>This Project covers the development of real-time, specific, and individualized interventions to optimize mental acuity and fatigue and manage metabolic and nutritional needs to sustain Soldier physical, mental, and immunological performance.</p> <p>The cited research is fully coordinated with Program element (PE) 0602143A (Soldier Lethality Technology) and complimentary to PE 0603118A (Soldier Lethality Advanced Technology) and is fully coordinated with other Services in order to avoid duplication of effort.</p> <p>The cited research is consistent with the Under Secretary of Defense (Research and Engineering) science and technology focus areas and the Army Modernization Strategy.</p>												
B. Accomplishments/Planned Programs (\$ in Millions)									FY 2024	FY 2025	FY 2026	
Title: Medical Strategies to Sustain Soldier Alertness and Performance in All Settings Description: Develop real-time, specific, and individualized interventions to optimize mental acuity and fatigue and manage metabolic and nutritional needs to sustain Soldier physical, mental, and immunological performance. FY 2025 Plans: Conclude studies that assessed Soldier ration consumption on Warfighter Energy Intake and Performance. FY 2026 Plans: Using the Close Combat Assault Rations (CCAR) consumption on Warfighter energy intake and performance study results to develop recommendations for utilization of CCAR in an operational relevant environment. FY 2025 to FY 2026 Increase/Decrease Statement: Funding decrease reflects planned continuation of this effort.									0.705	0.164	0.106	
Accomplishments/Planned Programs Subtotals									0.705	0.164	0.106	
C. Other Program Funding Summary (\$ in Millions) N/A												

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army		Date: June 2025
Appropriation/Budget Activity 2040 / 3	R-1 Program Element (Number/Name) PE 0603002A / Medical Advanced Technol ogy	Project (Number/Name) MO8 / Expeditionary Performance Nutrition Advanced Techn
C. Other Program Funding Summary (\$ in Millions)		
Remarks		
D. Acquisition Strategy		
N/A		

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army										Date: June 2025		
Appropriation/Budget Activity 2040 / 3					R-1 Program Element (Number/Name) PE 0603002A / Medical Advanced Technol ogy				Project (Number/Name) MP3 / Phys Chem Toxicity Assessment Sys Adv Tech			
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
MP3: Phys Chem Toxicity Assessment Sys Adv Tech	-	1.732	1.081	0.355	-	0.355	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This Project covers the development of products and solutions that will protect and prevent degradation of Soldier health, readiness and performance from environmental stressors (heat, cold, altitude, and chemical toxicants) while conducting prolonged operations in Multi-Domain Operations (MDO). Develop algorithms and physiological models to inform unit leaders and Soldiers and provide actionable information and interventions to manage metabolic needs, maintain performance, and avoid non-battle injuries while operating in extreme environments.

This Project contains no duplication with any effort within the Military Departments and includes direct participation by other Services. The cited research is fully coordinated with Program Element (PE) 0602143A (Soldier Lethality Technology) and complimentary to PE 0603118A (Soldier Lethality Advanced Technology).

The cited research is consistent with the Under Secretary of Defense, Research and Engineering Science and Technology, focus areas and the Army Modernization Strategy.

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2024	FY 2025	FY 2026
Title: Solutions to Sustain Warfighter Performance in Extreme Environments	1.732	1.081	0.355
Description: Protect and prevent degradation of Soldier health, readiness and performance from environmental stressors (heat, cold, altitude, chemical toxicants) while conducting prolonged operations in the MDO. Develop algorithms and physiological models to inform unit leaders and Soldiers and provide actionable information and interventions to manage metabolic needs, maintain performance, and avoid non-battle injuries while operating in extreme environments.			
FY 2025 Plans: Validate early warning hypoxia monitoring tool for use at high altitude. Validate a digital twin for individualized real-time health state prediction and squad readiness assessment.			
FY 2026 Plans: Continue validation of an early warning hypoxia monitoring tool for use at high altitude and wrap up the digital twin project.			
FY 2025 to FY 2026 Increase/Decrease Statement: Funding decrease reflects the completion of the bulk of the digital twin effort.			
Accomplishments/Planned Programs Subtotals	1.732	1.081	0.355

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army		Date: June 2025
Appropriation/Budget Activity 2040 / 3	R-1 Program Element (Number/Name) PE 0603002A / Medical Advanced Technol ogy	Project (Number/Name) MP3 / Phys Chem Toxicity Assessment Sys Adv Tech
C. Other Program Funding Summary (\$ in Millions) N/A		
Remarks		
D. Acquisition Strategy N/A		

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Army										Date: June 2025		
Appropriation/Budget Activity 2040: Research, Development, Test & Evaluation, Army I BA 3: Advanced Technology Development (ATD)					R-1 Program Element (Number/Name) PE 0603007A I Manpower, Personnel and Training Advanced Technology							
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
Total Program Element	-	15.845	16.716	13.559	-	13.559	-	-	-	-	-	-
792: Personnel Performance & Training	-	15.845	16.716	13.559	-	13.559	-	-	-	-	-	-

A. Mission Description and Budget Item Justification

This Program Element (PE) matures and validates applied behavioral and social science technologies that enhance the Soldier Lifecycle (e.g., selection, assignment, training, leader development) and human relations (e.g. unit cohesion). These technologies provide advanced personnel measures that more fully assess potential and predict performance, behavior, attitudes, and resilience. These technologies also provide innovative and effective Talent Management methods to optimize individual and team performance to ensure the Army can meet mission requirements in uncertain and complex environments. This PE evaluates new selection measures, assignment methods, and performance metrics for individuals and units, assesses innovative training methods, and conducts scientific assessments to inform Human Capital policy and programs. Work in this PE will result in effective non-materiel solutions to help the Army adjust to changes in force size and structure, a variety of mission demands and contexts, challenges in human relations, and budgetary constraints.

Work in this PE complements and is fully coordinated with PE 0602785A (Manpower/Personnel/Training Technology).

The cited work is consistent with the Under Secretary of Defense for Research and Engineering priority focus areas, the Army Vision, the Army's Talent Management Strategy, and the Army Modernization Strategy

Work in this PE is performed by the United States Army Research Institute (ARI) for the Behavioral and Social Sciences in Ft. Belvoir, VA.

The FY 2026 request was reduced by \$0.955 million for Advisory and Assistance Services to promote efficiencies and advance the policies of the Administration in alignment with Executive Order 14222, "Implementing the President's Department of Government Efficiency Cost Efficiency Initiative."

The FY 2026 request was reduced by \$0.086 million for civilian personnel to optimize the workforce in compliance with Executive Order 14210, "Implementing the President's Department of Government Efficiency Workforce Optimization Initiative."

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Army				Date: June 2025	
Appropriation/Budget Activity		R-1 Program Element (Number/Name)			
2040: Research, Development, Test & Evaluation, Army I BA 3: Advanced Technology Development (ATD)		PE 0603007A I Manpower, Personnel and Training Advanced Technology			
B. Program Change Summary (\$ in Millions)	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total
Previous President's Budget	16.316	16.716	17.200	-	17.200
Current President's Budget	15.845	16.716	13.559	-	13.559
Total Adjustments	-0.471	0.000	-3.641	-	-3.641
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-0.471	-			
• Adjustments to Budget Years	-	-	-3.641	-	-3.641
Change Summary Explanation					
Funding decrease in FY26 is related to the research in automated test prototypes, which focuses on acceleration of natural language technologies.					

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army										Date: June 2025		
Appropriation/Budget Activity 2040 / 3					R-1 Program Element (Number/Name) PE 0603007A / Manpower, Personnel and Training Advanced Technology				Project (Number/Name) 792 / Personnel Performance & Training			
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
792: Personnel Performance & Training	-	15.845	16.716	13.559	-	13.559	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This Project matures and demonstrate applied behavioral and social science technologies that enhance the Soldier Lifecycle (e.g., selection, assignment, training, leader development) and human relations (e.g., unit cohesion). These technologies provide advanced personnel measures that more fully assess potential and predict performance, behavior, attitudes, and resilience. These technologies also provide innovative and effective Talent Management methods to optimize individual and team performance to ensure the Army can meet mission requirements in uncertain and complex environments. This demonstrates new selection measures, assignment methods, and performance metrics for individuals and units; assesses innovative leader development and learning methods, and conducts scientific assessments to inform Human Capital policy and programs. Research will result in effective non-materiel solutions to help the Army adjust to changes in force size and structure, a variety of mission demands and contexts, challenges in human relations, and budgetary constraints.

Work in this Project complements PE 0602785A (Personnel Performance & Training Technology)

The cited work is consistent with the Under Secretary of Defense for Research and Engineering Science and Technology priority focus areas, the Army Vision, the Army People Strategy, the Army's Talent Management Strategy, and the Army Modernization Strategy.

Work is performed by the United States Army Research Institute (ARI) for the Behavioral and Social Sciences in Fort Belvoir, VA.

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2024	FY 2025	FY 2026
Title: Talent Assessment and Development	15.845	16.716	13.559
Description: This effort optimizes and demonstrates innovative talent management approaches to provide the Army the flexibility to adapt to changes in force structure and recruiting environments. This effort matures Soldier selection measures, techniques, and tools to more fully assess Soldier potential and better predict behavior, attrition, Soldier performance, and team effectiveness. This effort also matures and demonstrates methods that develop and model Soldier talents/competencies longitudinally across a career.			
FY 2025 Plans:			

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army		Date: June 2025	
Appropriation/Budget Activity 2040 / 3	R-1 Program Element (Number/Name) PE 0603007A / <i>Manpower, Personnel and Training Advanced Technology</i>	Project (Number/Name) 792 / <i>Personnel Performance & Training</i>	
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2024	FY 2025
<p>Will mature prototype development and initiate longitudinal validation of officer talent management assessments; will validate prototypes of automated test item generation for knowledge tests; will mature research on methods to develop complex leader competencies; will develop small unit performance training methods.</p> <p><i>FY 2026 Plans:</i> Will advance prototype development and mature longitudinal validation of officer talent management assessments; will advance validation of prototypes of automated test item generation for knowledge tests.</p> <p><i>FY 2025 to FY 2026 Increase/Decrease Statement:</i> FY26 decrease in funding is related to research to advance validation of prototypes of automated test item generation for knowledge tests.</p>			
Accomplishments/Planned Programs Subtotals		15.845	16.716
C. Other Program Funding Summary (\$ in Millions)			
N/A			
Remarks			
D. Acquisition Strategy			
N/A			

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Army	Date: June 2025
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Appropriation/Budget Activity 2040: <i>Research, Development, Test & Evaluation, Army I BA 3: Advanced Technology Development (ATD)</i>					R-1 Program Element (Number/Name) PE 0603025A / <i>Army Agile Innovation and Demonstration</i>							
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
Total Program Element	-	25.513	14.608	19.679	-	19.679	-	-	-	-	-	-
CK8: <i>Advanced Technology Development and Convergence</i>	-	13.500	10.102	10.068	-	10.068	-	-	-	-	-	-
DA3: <i>Army Advanced Innovation</i>	-	12.013	4.506	9.611	-	9.611	-	-	-	-	-	-

A. Mission Description and Budget Item Justification

This Program Element (PE) funds the Army's goal of accelerating innovative solutions to achieve future force modernization. The Army is using strategic and "non-traditional" partnerships and working with traditional vendors in novel ways to respond at the speed of innovation to accelerate the development of cutting-edge technology. Critical technologies that allow for technological superiority are increasingly dual-use or developed in academia-led partnerships that leverage cutting edge innovation. In an era of global competition, technological superiority requires agile and rapid innovation. Cross-cutting modernization initiatives leveraging strategic partnerships and foster an environment to bring knowledge and expertise to demonstrate breakthrough and innovative technologies that will benefit the warfighter. These collaborations bring new ways of doing business to demonstrate emerging technologies and systems with high payoff potential to address current technology shortfalls or future capability gaps and systems. Leveraging other innovative mechanisms, to include accelerators, incubators, and other technology accelerants, to enhance innovation is part of the overall innovation strategy. Innovation includes not only hardware, and physical products but also software, software development, artificial intelligence (AI) and machine learning, all as stand-alone initiatives and as part of broader innovation to programs and technology development. Senior leadership approves Innovation projects in the budget year and year of execution based on priority and opportunity, ensuring that innovations have a high potential for filling capability gaps and transitioning to Army acquisition to rapidly deliver capabilities to the Soldier through the Army's Innovation Oversight Board or Army Futures Command.

Research in this PE is closely coordinated with PE 0602002A (Army Agile Innovation and Development-Applied Research)

Work is performed by the United States Army Combat Capabilities Development Command (DEVCOM), Army Artificial Intelligence Integration Center (AI2C), Army Applications Laboratory (AAL), the Engineering Research and Development Center, Space and Missile Defense Technical Center, and the United States Army Research Institute for the Behavioral and Social Sciences.

The FY 2026 request was reduced by \$0.044 million for Advisory and Assistance Services to promote efficiencies and advance the policies of the Administration in alignment with Executive Order 14222, "Implementing the President's Department of Government Efficiency Cost Efficiency Initiative."

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Army				Date: June 2025	
Appropriation/Budget Activity		R-1 Program Element (Number/Name)			
2040: Research, Development, Test & Evaluation, Army I BA 3: Advanced Technology Development (ATD)		PE 0603025A I Army Agile Innovation and Demonstration			
B. Program Change Summary (\$ in Millions)	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total
Previous President's Budget	23.156	14.608	16.309	-	16.309
Current President's Budget	25.513	14.608	19.679	-	19.679
Total Adjustments	2.357	0.000	3.370	-	3.370
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	3.203	-			
• SBIR/STTR Transfer	-0.846	-			
• Adjustments to Budget Years	-	-	3.370	-	3.370
Change Summary Explanation					
Funding increase from the previous PB to the current PB reflects the net effect of realignments to mature and demonstrate the new effort to bring technologies originating from or through university-led university research hubs that are near a commercial use that has the potential for breakthrough or dual-use capability to significantly advance military applications.					

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army										Date: June 2025		
Appropriation/Budget Activity 2040 / 3					R-1 Program Element (Number/Name) PE 0603025A / Army Agile Innovation and Demonstration				Project (Number/Name) CK8 / Advanced Technology Development and Convergence			
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
CK8: Advanced Technology Development and Convergence	-	13.500	10.102	10.068	-	10.068	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The Army aims to accelerate finding innovative solutions for the warfighter's difficult technological problems. This effort develops new ways of doing business to include strategic and non-traditional partnerships while working with traditional vendors in novel ways to allow for agile integration of leading-edge technology. This effort enables the Army to quickly implement novel solutions garnered from operational experimentation. It allows the Army to accelerate efforts with industry to better inform requirements. Army Futures Command senior leadership approves innovation projects in the budget year and year of execution based on priority and opportunity, ensuring that innovations have a high potential for filling capability gaps. These efforts transition to programs of record; transition to Army Science and Technology (S&T) projects; inform requirements and concepts; and, when appropriate, transition directly to the warfighter.

The cited research is consistent with the Under Secretary of Defense for Research and Engineering priority focus areas.

Work is performed by the Army Applications Laboratory (AAL).

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2024	FY 2025	FY 2026
Title: Advanced Technology Development of Existing Commercial Technology	8.593	10.102	10.068
Description: Advanced commercial development exists when direct investment leads to rapid technology applications and demonstration. The Army identifies existing technology, often available commercially, to further develop and modify for Army use. Partnerships with industry both traditional and non-traditional, allow the Army to advance non-military commercial research and development investments through focused engagements resulting in commercial adaption and integration to address Army technology and modernization efforts. Initial nominal Army investment in proof of technology and technology demonstrations will expedite novel technologies shaping their development to meet Army requirements and expediting both component and complete system adaptation.			
FY 2025 Plans: Assess, seed, demonstrate, integrate and bridge technologies which will allow for rapid transitions that will transition to acquisition and other programs to deliver capabilities to Soldiers. Innovation efforts funded under this line will be approved by Army Futures Command senior leaders in the budget year and year of execution based on priority and opportunity. This Army innovation			

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army		Date: June 2025	
Appropriation/Budget Activity 2040 / 3	R-1 Program Element (Number/Name) PE 0603025A / <i>Army Agile Innovation and Demonstration</i>	Project (Number/Name) CK8 / <i>Advanced Technology Development and Convergence</i>	
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2024	FY 2025
<p>program will accelerate approved efforts that support the design of the Army of 2040 and enable the Army's Transform in Contact (TiC) units.</p> <p>FY 2026 Plans: Will mature and demonstrate, and transition innovative technologies that solve warfighter problems. The Army Innovation Oversight Board will approve efforts in the budget year and year of execution based on priority efforts and the potential impact to the warfighter. These efforts may include, but are not limited to, emerging technologies that enhance unit lethality and survivability, promote unit readiness, increase the Army's ability to engage in lethal fires, improve methods to remove Soldiers from harm, and improve unit efficiency. These efforts could transition as new programs of record, transition into existing programs of record, transition to other science and technology efforts, or inform concepts and requirements.</p> <p>FY 2025 to FY 2026 Increase/Decrease Statement: FY 2026 funding decrease due to an economic assumption.</p>			
<p>Title: Demonstration and Development of Army Discovered Innovative Technologies</p> <p>Description: The Army seeks to develop and demonstrate technology that display unique and innovative potential in a cross-domain fashion. This effort seeks to direct advanced research funding towards technologies that are discovered from Army Innovation events such as Innovation Days funded by PE 0605054A (Emerging Technology Initiatives) / Project FI3 (Rapid Capability Development and Maturation) or the Expeditionary Technology Search effort in PE 0605803A (Technical Information Activities) / Project CC2 (Expeditionary Technologies).</p>		4.907	-
Accomplishments/Planned Programs Subtotals		13.500	10.102
C. Other Program Funding Summary (\$ in Millions)			
N/A			
Remarks			
D. Acquisition Strategy			
N/A			

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army										Date: June 2025		
Appropriation/Budget Activity 2040 / 3					R-1 Program Element (Number/Name) PE 0603025A / Army Agile Innovation and Demonstration				Project (Number/Name) DA3 / Army Advanced Innovation			
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
DA3: Army Advanced Innovation	-	12.013	4.506	9.611	-	9.611	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This Project funds the Advanced Development portion of the Army Innovation Plan, the Army's investment strategy to rapidly accelerate innovative solutions to challenging Warfighter problems. This Project will provide the Army with the most advanced and cutting-edge solutions with the ability to adapt and integrate multi-disciplinary innovative technologies by bridging the interfaces between internal and external efforts for a holistic entry into the acquisition pipeline at the most appropriate milestone. Cross-cutting modernization initiatives leverage strategic partnerships that foster an environment to bring knowledge and expertise to demonstrate innovative technologies that will benefit the warfighter. The pace of advancing technology and the flexibility to respond to cutting-edge technology at the Speed of Innovation, will accelerate the development of unanticipated technology opportunities, and allow the Army to rapidly deliver capabilities to the Soldier. Through the Army's Innovation Oversight Board, the Army senior leadership approves the Innovation projects in the budget year and year of execution based on priority and opportunity, ensuring that innovations have a high potential for filling capability gaps and transitioning to Army S&T projects to inform an optimal technology investment strategy and rapidly deliver capabilities to the Soldier.

This Project is coordinated with Program Element (PE) 0602002A (Army Agile Innovation and Development-Applied Research) / Project DC4 (Army Applied Innovation). The cited research is consistent with the Under Secretary of Defense for Research and Engineering priority focus areas.

Work is performed by the United States Army Combat Capabilities Development Command (DEVCOM), Army Artificial Intelligence Integration Center (AI2C), the Engineering Research and Development Center, Space and Missile Defense Technical Center, the United States Army Research Institute for the Behavioral and Social Sciences, and the Army Research Laboratory (ARL).

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2024	FY 2025	FY 2026
Title: Army Advanced Innovation	12.013	4.506	6.152
Description: The Army seeks to develop and demonstrate technology that display unique and innovative potential in a cross-domain fashion. This effort will serve as funding to rapidly transition disruptive and groundbreaking capabilities that fall outside of the normal acquisition pipeline.			
FY 2025 Plans: The Army seeks to assess and demonstrate innovative technology that accelerate transition of capabilities that will allow for rapid modernization. Proposal topics focus on transformational technologies with a shift in focus to the design of the Army of 2040; improve Command and Control applications through demonstration and optimization of software tools and automated workflows			

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army		Date: June 2025	
Appropriation/Budget Activity 2040 / 3	R-1 Program Element (Number/Name) PE 0603025A / Army Agile Innovation and Demonstration	Project (Number/Name) DA3 / Army Advanced Innovation	
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2024	FY 2025
improving performance and reducing human workloads; design and develop a Command and Control architecture to inform future fielding.			
FY 2026 Plans: Will evaluate and demonstrate innovative technologies that expedite the transition of capabilities, enabling swift modernization; concentrate on transformational technologies, shifting the emphasis towards the design of the Army in 2040.			
FY 2025 to FY 2026 Increase/Decrease Statement: FY 2026 funding increase due to additional investments in innovative technology, with an emphasis towards the design of the Army of 2040.			
Title: Advance Army University Research Hubs		-	-
Description: The Army seeks to exploit the academic innovation ecosystem to capture, mature, and demonstrate disruptive technologies through their existing body of advanced research and their capacity to further develop and deliver cross-cutting technology solutions for Army Transformation. Sources and partners include academic institutions, university entrepreneur/spin-out programs, international academic partners, Historically Black Colleges and Universities/Minority Institutions (HBCU/MI) underrepresented institutions, designated Army research centers, University Affiliated Research Centers (UARCs), and similar organizations. Outputs are planned for transition to advance, integrate into, or complement other Army science and technology programs or directly into acquisition programs.			3.459
FY 2026 Plans: Will mature and demonstrate technologies originating from or through university-led research that have matured to or near a commercial use that has the potential for breakthrough or dual-use capability to significantly advance military applications in priority or directed transformation areas such as weapon systems, human machine interface, Command, Control, Communications, Computers, Cyber, Intelligence, Surveillance and Reconnaissance (C5ISR), logistics, and Soldier enabling systems; prototype university technologies for field testing and validation.			
FY 2025 to FY 2026 Increase/Decrease Statement: FY 2026 funding increase due to initiation of Advance Army University Research Hubs. This effort is a new start in FY 2026.			
Accomplishments/Planned Programs Subtotals		12.013	4.506
C. Other Program Funding Summary (\$ in Millions) N/A			
Remarks			

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army		Date: June 2025
Appropriation/Budget Activity 2040 / 3	R-1 Program Element (Number/Name) PE 0603025A / Army Agile Innovation and Demonstration	Project (Number/Name) DA3 / Army Advanced Innovation
D. Acquisition Strategy N/A		

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Army	Date: June 2025
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Appropriation/Budget Activity <i>2040: Research, Development, Test & Evaluation, Army / BA 3: Advanced Technology Development (ATD)</i>	R-1 Program Element (Number/Name) <i>PE 0603040A / Artificial Intelligence and Machine Learning Advanced Technologies</i>											
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
Total Program Element	-	23.909	30.263	20.487	-	20.487	-	-	-	-	-	-
CL1: <i>AI Enhanced Intel Operations Advanced Technologies</i>	-	1.309	2.261	1.859	-	1.859	-	-	-	-	-	-
CL6: <i>ATR Using Multiple Cooperative Sensors Adv Tech</i>	-	4.730	8.740	6.525	-	6.525	-	-	-	-	-	-
CN6: <i>Predictive Maintenance Advanced Technology</i>	-	3.967	4.139	5.328	-	5.328	-	-	-	-	-	-
CT8: <i>Army AI Integration Center Adv Research (CA)</i>	-	11.500	12.000	-	-	-	-	-	-	-	-	-
DA7: <i>AI-Enabled Command and Coordination Adv Tech</i>	-	1.345	1.157	3.250	-	3.250	-	-	-	-	-	-
DE9: <i>AI Development Environment Advanced Technology</i>	-	1.058	1.966	2.777	-	2.777	-	-	-	-	-	-
DN3: <i>AI Enabled Contested Logistics Spt Tools Adv Tech</i>	-	-	-	0.748	-	0.748	-	-	-	-	-	-

Note

In FY 2026, Project DN3 - AI Enabled Contested Logistics Spt Tools Adv Tech is a new start within the Artificial Intelligence and Machine Learning Advanced Technologies program.

A. Mission Description and Budget Item Justification

This Program Element (PE) will mature and demonstrate advanced technologies using artificial intelligence (AI) and machine learning (ML) to improve target recognition/detection using multiple cooperative autonomous sensors, leader decision-making, and replication of tactical behaviors to enable autonomous capabilities for maneuver, predictive maintenance, talent management, Intel support for Operations, network and cybersecurity and medical support. The Army's Artificial Intelligence Integration Center (AI2C) will provide strategic guidance and coordination of these advanced research efforts in AI/ML across the Army Modernization enterprise.

Research in this PE contributes to the Army Science and Technology (S&T) portfolio and is fully coordinated with efforts in PE 0601601A (Artificial Intelligence and Machine Learning Basic Research) and PE 0602180A (Artificial Intelligence and Machine Learning Technologies).

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Army **Date:** June 2025

Appropriation/Budget Activity 2040: <i>Research, Development, Test & Evaluation, Army I BA 3: Advanced Technology Development (ATD)</i>	R-1 Program Element (Number/Name) PE 0603040A / <i>Artificial Intelligence and Machine Learning Advanced Technologies</i>
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The cited research is consistent with the Under Secretary of Defense for Research and Engineering S&T focus areas, the Army Modernization Strategy and the Chief Digital and Artificial Intelligence Office (CDAO).

B. Program Change Summary (\$ in Millions)	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total
Previous President's Budget	13.187	18.263	16.763	-	16.763
Current President's Budget	23.909	30.263	20.487	-	20.487
Total Adjustments	10.722	12.000	3.724	-	3.724
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	11.500	12.000			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-0.297	-			
• SBIR/STTR Transfer	-0.481	-			
• Adjustments to Budget Years	-	-	3.724	-	3.724

Congressional Add Details (\$ in Millions, and Includes General Reductions)			FY 2024	FY 2025
Project: CT8: <i>Army AI Integration Center Adv Research (CA)</i>				
Congressional Add: <i>Cognitive Computing Architecture for Military Systems</i>			11.500	-
Congressional Add: <i>Edge based predictive maintenance tools</i>			-	12.000
Congressional Add Subtotals for Project: CT8			11.500	12.000
Congressional Add Totals for all Projects			11.500	12.000

Change Summary Explanation

Funding increase in Fiscal Year (FY) 2026 from the previous PB to the current PB reflects realignment from Program Element (PE) 0602180A (Artificial Intelligence and Machine Learning Technologies) in support of acceleration of technology transitions.

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army										Date: June 2025		
Appropriation/Budget Activity 2040 / 3					R-1 Program Element (Number/Name) PE 0603040A / Artificial Intelligence and Machine Learning Advanced Technologies				Project (Number/Name) CL1 / AI Enhanced Intel Operations Advanced Technologies			
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
CL1: AI Enhanced Intel Operations Advanced Technologies	-	1.309	2.261	1.859	-	1.859	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Artificial Intelligence (AI) Enabled Intelligence Fusion for Targeting will address a "multi-INT" fusion problem and mature and demonstrate how AI algorithms can fuse data from various military intelligence systems to support sensor to shooter automation for the strategic, operational, and tactical levels. This effort will mature and demonstrate AI capabilities for support of Long-Range Precision Fires, Mission Command, and Maneuver Commanders by exploiting Intelligence Community enterprise investments in sensing, data transport, and Machine Learning (ML) / AI frameworks. These technologies will produce software, novel algorithms and models, and knowledge products.

Work in this project complements Program Element (PE) 0602180A (Artificial Intelligence and Machine Learning Advanced Technologies) / Project CL2 (AI Enhanced Intel Operations Technologies).

The cited work is consistent with Under Secretary of Defense for Research and Engineering priority focus areas and the Army Modernization Strategy.

Work in this Project is performed by the Artificial Intelligence Integration Center (AI2C).

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2024	FY 2025	FY 2026
Title: AI Enabled Intelligence Fusion for Targeting	1.309	1.203	0.900
Description: AI Enabled Intelligence Fusion for Targeting will mature and demonstrate how AI algorithms can fuse data from various military intelligence systems (multi-INT) to support sensor to shooter automation for the strategic, operational, and tactical levels. This effort will design and develop AI capabilities for support of Long Range Precision Fires, Mission Command, and Maneuver Commanders by leveraging Intelligence Community enterprise investments in sensing, data transport, and Machine Learning / AI frameworks.			
FY 2025 Plans: AI Enabled Intelligence Fusion for Targeting will continue to provide a system of applications to identify targets of interest. This effort will further mature and optimize algorithms to predict representation of novel object classes from a small number of novel class samples, improving the AI algorithm learning capability and reducing the need for manual data input. Will continue to develop the use of visual, language, signal, and event-based information and semantic relationships to learn additional new			

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army			Date: June 2025		
Appropriation/Budget Activity 2040 / 3		R-1 Program Element (Number/Name) PE 0603040A / Artificial Intelligence and Machine Learning Advanced Technologies	Project (Number/Name) CL1 / AI Enhanced Intel Operations Advanced Technologies		
B. Accomplishments/Planned Programs (\$ in Millions)			FY 2024	FY 2025	FY 2026
objects and relationships and validate knowledge transfer from base classes to novel classes in order to reduce the time it takes to train AI algorithms. Will demonstrate the ability of the algorithm to fuse data from various military intelligence systems in a simulation and then demonstrate the algorithm performing fusion of real-world intelligence data to show improved target confirmation over what can be provided by any single AI enabled-sensor. Will work with PEO C3T and PEO IEWS program managers for JTIC2S and TITAN respectively to exploit the fusion algorithm and the required data pipelines. FY 2026 Plans: Will mature and demonstrate a system of applications that utilize AI technologies to identify targets of interest and develop algorithms that use multiple data sources to predict representation for novel object classes from a small number of novel class samples; optimize the fusion of visual, language, signal, and event-based information and semantic relationships to learn new objects and relationships and validate knowledge transfer from base classes to novel classes to reduce the time it takes to train AI algorithms. FY 2025 to FY 2026 Increase/Decrease Statement: Funding decrease reflects realignment to Program Element (PE) 0603040A (Artificial Intelligence and Machine Learning Advanced Technologies) / Project DA7 (AI-Enabled Command and Coordination Adv Tech).					
Title: Foundation for AI Intel Support to Operations Description: Develop and mature an AI infrastructure/pipeline for training, integrating, and sustaining AI across multiple AI domains to inform requirements for enterprise production systems and edge systems for the Army Military Intelligence and Operations (Intel/Ops) community. FY 2025 Plans: In order to inform requirements for Project Linchpin, will continue to mature data frameworks and data pipelines for fusion of intelligence data from multiple military intelligence systems. Will continue to develop and optimize data frameworks and pipelines with infrastructure components that can implement machine learning algorithms across multiple AI domains. FY 2026 Plans: Will continue to mature data frameworks and data pipelines for fusion of intelligence data from multiple military intelligence systems; develop and optimize data frameworks and pipelines with infrastructure components that can implement machine learning algorithms across multiple AI domains. FY 2025 to FY 2026 Increase/Decrease Statement: Funding decrease reflects realignment to Program Element (PE) 0603040A (Artificial Intelligence and Machine Learning Advanced Technologies) / Project DA7 (AI-Enabled Command and Coordination Adv Tech).			-	1.058	0.959
Accomplishments/Planned Programs Subtotals			1.309	2.261	1.859

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army		Date: June 2025
Appropriation/Budget Activity 2040 / 3	R-1 Program Element (Number/Name) PE 0603040A / Artificial Intelligence and Machine Learning Advanced Technologies	Project (Number/Name) CL1 / AI Enhanced Intel Operations Advanced Technologies
C. Other Program Funding Summary (\$ in Millions) N/A		
Remarks		
D. Acquisition Strategy N/A		

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army										Date: June 2025		
Appropriation/Budget Activity 2040 / 3					R-1 Program Element (Number/Name) PE 0603040A / Artificial Intelligence and Machine Learning Advanced Technologies				Project (Number/Name) CL6 / ATR Using Multiple Cooperative Sensors Adv Tech			
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
CL6: ATR Using Multiple Cooperative Sensors Adv Tech	-	4.730	8.740	6.525	-	6.525	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This Project will mature and demonstrate Artificial Intelligence (AI) algorithms/models and supporting systems that leverage a team of air and ground sensors to autonomously navigate and collaborate through shared perception of the optical, thermal, and electromagnetic spectrums to find, identify, geo-locate, track, and help engage targets during reconnaissance missions. These technologies will produce a mix of fully integrated software, AI algorithms/models, and ground-based/aerial-based drones to execute reconnaissance and engagement tasks in battlefield conditions.

Work in this project complements Program Element (PE) 0602180A (Artificial Intelligence and Machine Learning Advanced Technologies) / Project CL7 (ATR Using Multiple Cooperative Sensors App Tech)

The cited work is consistent with Under Secretary of Defense for Research and Engineering priority focus areas and the Army modernization strategy.

Work in this Project supports the Army Science and Technology Lethality Portfolio and the Joint Artificial Intelligence Center (JAIC).

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2024	FY 2025	FY 2026
Title: Collaborative Target Detection and Tracking	4.730	8.740	6.525
Description: This effort will mature and demonstrate an AI-enabled scalable team of autonomous air and ground vehicles that will cooperatively conduct a zone recon to identify, geolocate, and track threats using on-board electronic intelligence (ELINT) and electro optical-infrared (EO-IR) sensors.			
FY 2025 Plans: Provides modular sensor and computer hardware and integrates them onto two transitions platforms. Matures and demonstrates the functionality of low-level vehicle control and drive commands for the Small Multi-purpose Equipment Transport (SMET) and Remote Control Vehicle (RCV) using the Robotics Technology Kernel (RTK) By-wire-Kit (B-kit). Matures the existing, non-controlled, autonomy stack developed under the previous phases of this project to Robot Operating System (ROS) version 2.0 to ease the transition of autonomy modules to the Army's latest version of its controlled autonomy stack called Robotics Technology Kernel (RTK) that uses ROS 2.0 or selected module. Install and evaluate RTK '23 release (ROS 2.0 version) onto transition platforms. Matures and demonstrates the following capabilities - as functional modules or libraries - within RTK: Aided Target			

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army		Date: June 2025		
Appropriation/Budget Activity 2040 / 3	R-1 Program Element (Number/Name) PE 0603040A / <i>Artificial Intelligence and Machine Learning Advanced Technologies</i>	Project (Number/Name) CL6 / <i>ATR Using Multiple Cooperative Sensors Adv Tech</i>		
B. Accomplishments/Planned Programs (\$ in Millions) recognition (ATR), perception system including stereo vision, pose estimation system, Android Tactical Assault Kit (ATAK) command & control, zone reconnaissance multi-vehicle collaborative search. FY 2026 Plans: Will directly integrate Android Tactical Assault Kit (ATAK)-adjacent software onto program of record (POR) support systems, most prominently Nett Warrior; optimize AI algorithms/models for autonomy, automated threat recognition, target geolocation, and auto adjust fire for effective use by POR ecosystems; mature drone autonomy and tasking options to enable Soldier control at a minimum cognitive burden; demonstrate the creation and support of advanced expendable, attributional drone designs to execute targeted reconnaissance and engagement tasks in field conditions; extend the infrastructure necessary to support effective AI model retraining, movement, and monitoring leveraging both edge and enterprise environments; participate in government-run demonstrations to support technology transition. FY 2025 to FY 2026 Increase/Decrease Statement: Funding decrease reflects expedited accomplishments of the ATR Using Multiple Cooperative Sensors Adv Tech Project to higher levels of technical readiness in preparation for transition. This decreased funding rebalances applied research funds from the same project to advanced research funds needed for iterative solution improvement. Funding realigned to Program Element (PE) 0603040A (Artificial Intelligence and Machine Learning Advanced Technologies) / Project DA7 (AI-Enabled Command and Coordination Adv Tech).		FY 2024	FY 2025	FY 2026
Accomplishments/Planned Programs Subtotals		4.730	8.740	6.525
C. Other Program Funding Summary (\$ in Millions) N/A Remarks D. Acquisition Strategy N/A				

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army										Date: June 2025		
Appropriation/Budget Activity 2040 / 3					R-1 Program Element (Number/Name) PE 0603040A / Artificial Intelligence and Machine Learning Advanced Technologies				Project (Number/Name) CN6 / Predictive Maintenance Advanced Technology			
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
CN6: Predictive Maintenance Advanced Technology	-	3.967	4.139	5.328	-	5.328	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This Project matures and demonstrates artificial intelligence (AI) and machine learning (ML) tools and capabilities to predict and analyze maintenance status for emerging and legacy aviation and ground platforms. Will extract maintenance data from databases and sensors and make inferences of missing data via virtual simulations and improve and provide AI data capture and other AI tools for enterprise maintenance resource planning for military aviation and ground vehicles. Platforms of focus will be prioritized by cost and value to Army missions and include the UH60, AH64, CH47, Stryker, and Abrams. Each platform will be sequentially evaluated both at the component (i.e. engine health) and fleet level. This Project matures and demonstrates the use of predictive maintenance to increase fleet operational readiness through reduced downtime by preventing critical failure during missions to maximize availability to combatant commands. Results from this project will inform requirements and technical architectures for a predicative maintenance platform that will include data engineering, data pipelines, AI development eco-system, and application delivery. These technologies will produce a suite of applications hosted at both the enterprise and at the edge that provide AI-enabled support tools decision-making for maintainers and commanders.

Work in this project complements Program Element (PE) 0602180A (Artificial Intelligence and Machine Learning Advanced Technologies) / Project CN7 (Predictive Maintenance Applied Research).

The cited work is consistent with Under Secretary of Defense for Research and Engineering priority focus areas and the Army Modernization Strategy.

Work in this Project is performed by the Artificial Intelligence Integration Center (AI2C).

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2024	FY 2025	FY 2026
Title: PMx Platform Data Management and Integrated Environment Refinement	3.567	4.139	5.328
Description: This effort will mature and optimize a predictive maintenance (PMx) cloud-based environment, mature and validate data collection/aggregation techniques, and demonstrate and validate a data architecture and the data pipelines to a cloud-based environment.			
FY 2025 Plans: The project will mature and demonstrate the edge/cloud compute capability to experiment and develop progressive web applications that are able to operate in a Denied, Degraded, Intermittent, and Limited (bandwidth) (DDIL) environment. These applications will provide functionality for the tactical unit collocated with the node and any other units connected to that node and			

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army		Date: June 2025		
Appropriation/Budget Activity 2040 / 3	R-1 Program Element (Number/Name) PE 0603040A / <i>Artificial Intelligence and Machine Learning Advanced Technologies</i>	Project (Number/Name) CN6 / <i>Predictive Maintenance Advanced Technology</i>		
B. Accomplishments/Planned Programs (\$ in Millions) will federate with the enterprise when connection is restored. This leverages work in support of the tactical data fabric and the Lower Echelon Analytics Platform Tactical (LTAC). FY 2026 Plans: Will optimize predictive maintenance application capabilities in a disconnected, denied, intermittent and/or with limited bandwidth (DDIL) environment through integration during deployments and training exercises; continue to utilize maintainer support device architectures; demonstrate applications that demonstrate a proof of concept for a design based on the network available for warfighters to access. FY 2025 to FY 2026 Increase/Decrease Statement: Funding increase reflects administrative realignment from Program Element (PE) 0602180A (Predictive Maintenance Applied Research) / Project CN7 (Predictive Maintenance Applied Research) to continue the maturation and integration of advanced communications components.		FY 2024	FY 2025	FY 2026
Title: PMx Autonomous Resupply Description: This effort will develop, mature, and demonstrate AI models and algorithms for an autonomous aviation platform to transport supply stocks to support operations. Emphasis will be on ensuring the airworthiness of an autonomous aviation platform that can move from a rear resupply point forward to a designated location while avoiding basic obstacles and accounting for normal weather conditions. Resupply will occur using human intervention after the autonomous aircraft safely stops in the designated end location.		0.400	-	-
Accomplishments/Planned Programs Subtotals		3.967	4.139	5.328
C. Other Program Funding Summary (\$ in Millions) N/A Remarks D. Acquisition Strategy N/A				

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army										Date: June 2025		
Appropriation/Budget Activity 2040 / 3					R-1 Program Element (Number/Name) PE 0603040A / <i>Artificial Intelligence and Machine Learning Advanced Technologies</i>				Project (Number/Name) CT8 / <i>Army AI Integration Center Adv Research (CA)</i>			
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
CT8: <i>Army AI Integration Center Adv Research (CA)</i>	-	11.500	12.000	-	-	-	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Congressional Interest Item funding provided for Army AI Integration Center Advanced Research.

The cited work is consistent with the Under Secretary of Defense for Research and Engineering priority focus areas and the Army modernization strategy.

B. Accomplishments/Planned Programs (\$ in Millions)	FY 2024	FY 2025
<i>Congressional Add:</i> Cognitive Computing Architecture for Military Systems	11.500	-
<i>FY 2024 Accomplishments:</i> Congressional Interest Item for Cognitive Computing Architecture for Military Systems		
<i>Congressional Add:</i> Edge based predictive maintenance tools	-	12.000
<i>FY 2025 Plans:</i> Congressional Interest Item for Edge based predictive maintenance tools		
Congressional Adds Subtotals	11.500	12.000

C. Other Program Funding Summary (\$ in Millions)

N/A

Remarks

D. Acquisition Strategy

N/A

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army										Date: June 2025		
Appropriation/Budget Activity 2040 / 3					R-1 Program Element (Number/Name) PE 0603040A / Artificial Intelligence and Machine Learning Advanced Technologies				Project (Number/Name) DA7 / AI-Enabled Command and Coordination Adv Tech			
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
DA7: AI-Enabled Command and Coordination Adv Tech	-	1.345	1.157	3.250	-	3.250	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This Project matures and demonstrates solutions for Artificial Intelligence (AI)-enabled Command and Coordination (C2) that provide timely understanding and application of the commander's intent. This Project improves sensor-to-shooter and course of action development timelines by developing algorithms, software, and hardware to efficiently capture, transport, process, and convey complex battlefield data into user friendly, streamlined, interfaces. This Project also exploits advances in the application of game theory to explore hypothetical operational scenarios that inform mission planning. These technologies will optimize mission command and network capabilities to fully realize AI on the battlefield. These technologies will produce software, novel algorithms and models, and knowledge products that focus on enabling commanders and their staffs with the ability to conduct mission command to achieve C2 overmatch.

Work in this Project complements Program Element (PE) 0602180A (Artificial Intelligence and Machine Learning Technologies) / Project DA6 (AI-Enabled Command and Coordination Apl Research).

The cited work is consistent with Under Secretary of Defense for Research and Engineering priority focus areas and the Army Modernization Strategy.

Work in this Project is performed by the Artificial Intelligence Integration Center (AI2C).

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2024	FY 2025	FY 2026
Title: AI-Enabled Common Operating Picture and Battle Tracking	1.345	0.501	0.500
Description: This effort will develop and mature AI-enabled tools that allow commanders and staff to prepare for, execute, and assess Army operations to enable decision dominance. Will mature and demonstrate human-machine interfaces that take input of commanders' intent and plans and provides computer-based battle tracking to identify risk to mission and force and AI-optimized direction to Army forces and unified action partners.			
FY 2025 Plans: Develop AI-enabled common operating picture that surfaces ML/AI insights from the Sustainment, Intelligence, Fires, Protection, Movement and Maneuver, and Information Advantage warfighting functions.			
FY 2026 Plans:			

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army			Date: June 2025		
Appropriation/Budget Activity 2040 / 3		R-1 Program Element (Number/Name) PE 0603040A / <i>Artificial Intelligence and Machine Learning Advanced Technologies</i>	Project (Number/Name) DA7 / <i>AI-Enabled Command and Coordination Adv Tech</i>		
B. Accomplishments/Planned Programs (\$ in Millions)			FY 2024	FY 2025	FY 2026
Will mature and demonstrate AI-enabled common operating picture through enhancements that surface machine learning/artificial intelligence (ML/AI) insights from the Sustainment, Intelligence, Fires, Protection, Movement and Maneuver, and Information Advantage warfighting functions.					
FY 2025 to FY 2026 Increase/Decrease Statement: Funding decrease reflects an economic adjustment.					
Title: AI Foundations for Command and Coordination			-	0.406	0.405
Description: Matures and optimizes novel foundational models in computer vision, natural language processing/understanding, and temporal/event series analysis that analyze, understand, and optimize AI-operations across Army Battle Command Systems and data fabrics. Establishes access to fused multitudinous data sources in support of AI-based analytics capabilities.					
FY 2025 Plans: Will mature and demonstrate advanced algorithms for use by wider force and Operational Data Science Teams (ODSTs) to build and support emerging artificial intelligence enabled mission command information applications for the command post. Validates emerging lower echelon analytic platform tactical data fabric.					
FY 2026 Plans: Will mature and demonstrate advanced algorithms for use by wider force and Operational Data Science Teams (ODSTs); build and support enhanced artificial intelligence enabled mission command information applications for the command post; conduct experiments to validate lower echelon analytic platform tactical data fabric.					
FY 2025 to FY 2026 Increase/Decrease Statement: Funding decrease reflects an economic adjustment.					
Title: AI Enhanced Planning for Optimal Operations			-	0.250	0.251
Description: Designs and develops AI-enabled systems that link people, processes, networks, and command posts in support of command and control. Develops and trains models that analyze, understand, and optimize AI-operations across Army Battle Command Systems and data fabrics. Establishes access to fused multitudinous data sources in support of AI-based analytics capabilities.					
FY 2025 Plans: Will mature and demonstrate game theory and multi-agent reinforcement learning and other foundational AI models and algorithms to integrate with an available simulation framework to create COAs at the theater echelons. Will optimize scenario					

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army			Date: June 2025		
Appropriation/Budget Activity 2040 / 3		R-1 Program Element (Number/Name) PE 0603040A / <i>Artificial Intelligence and Machine Learning Advanced Technologies</i>	Project (Number/Name) DA7 / <i>AI-Enabled Command and Coordination Adv Tech</i>		
B. Accomplishments/Planned Programs (\$ in Millions)			FY 2024	FY 2025	FY 2026
criteria needed for the algorithm to function, design, and develop learning strategies and utility functions, and integrate the AI system into an available simulation suite to enable model training. FY 2026 Plans: Will continue maturation of foundational AI models and algorithms that integrate into simulation framework and create course of actions at the theater echelons; previously developed game theory and multi-agent reinforcement learning will be optimized to validate algorithm function, design, learning strategies, and utility functions so that AI systems enable model training. FY 2025 to FY 2026 Increase/Decrease Statement: Funding increase reflects an economic adjustment.					
Title: Soldier Assistant Language Technologies Description: This effort will investigate and mature application of cutting-edge language technologies onto warfighter systems in order to increase network effectiveness and resilience, reduce personnel requirements, and increase Solder situational awareness. Exploitation of semantic understanding, machine translation, natural language processing, automated speech recognition and other emerging language-based technologies and techniques to enable decisions at machine speed, expanding the scope of useful data to include natural language. FY 2026 Plans: Will demonstrate, and mature appropriate application(s) or system(s) leveraging emerging language-based AI technologies for mission command of operational forces. FY 2025 to FY 2026 Increase/Decrease Statement: In Fiscal Year (FY) 2026, this effort is a New Start. Funding realigned from Program Element (PE) 0603040A (Artificial Intelligence and Machine Learning Advanced Technologies) / Projects CL1 (AI Enhanced Intel Operations Advanced Technologies), CL6 (ATR Using Multiple Cooperative Sensors Adv Tech), CN6 (Predictive Maintenance Advanced Technology), DE9 (AI Development Environment Advanced Technology), and PE 0602180A (Artificial Intelligence and Machine Learning Technologies) / Project DA6 (AI-Enabled Command and Coordination Apl Research),			-	-	2.094
Accomplishments/Planned Programs Subtotals			1.345	1.157	3.250
C. Other Program Funding Summary (\$ in Millions) N/A Remarks					

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army		Date: June 2025
Appropriation/Budget Activity 2040 / 3	R-1 Program Element (Number/Name) PE 0603040A / Artificial Intelligence and Machine Learning Advanced Technologies	Project (Number/Name) DA7 / AI-Enabled Command and Coordination Adv Tech
D. Acquisition Strategy N/A		

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army										Date: June 2025		
Appropriation/Budget Activity 2040 / 3					R-1 Program Element (Number/Name) PE 0603040A / Artificial Intelligence and Machine Learning Advanced Technologies				Project (Number/Name) DE9 / AI Development Environment Advanced Technology			
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
DE9: AI Development Environment Advanced Technology	-	1.058	1.966	2.777	-	2.777	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This Project funds the Army lacking a common platform to develop AI/ML. This results in siloed and duplicative work that is inefficient. Many current solutions have narrow application and are proprietary, requiring additional funding, time, and labor to make even minor modifications. The AI-enabled Army of the future will require low cost, rapid AI/ML solutions at the edge. This project will mature and demonstrate a set of platform(s), and infrastructure optimized for Army use and ready for rapid employment in enterprise, multi, and hybrid cloud environments to support modular software (cloud native) intended to continuously develop and integrate AI/ML models. It will mature and demonstrate hardware and software technologies, including cloud native applications and infrastructure for globally dispersed AI/ML development collaboration, artifact sharing, automated resource provisioning, and continuous ML Operations. The AI Development Environment will provide the AI-enabled Army of the future with low cost, rapid AI/ML solutions at the edge and accelerated algorithm development for faster delivery to the field.as well as less expensive AI/ML development by leveraging shared resources.These technologies will produce a software prototype deployed in a cloud environment to demonstrate ability to conduct distributed development of AI/ML solutions.

Work in this project complements Program Element (PE) 0602180A (Artificial Intelligence and Machine Learning Advanced Technologies) / Project DE8 (AI Development Environment Applied Research).

The cited work is consistent with Under Secretary of Defense for Research and Engineering priority focus areas and the Army Modernization Strategy.

Work in this Project is performed by the Artificial Intelligence Integration Center (AI2C).

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2024	FY 2025	FY 2026
Title: Artificial Intelligence Development Environment Advanced Technology Development	1.058	1.966	2.777
Description: Will mature and optimize a cloud native AI model development architecture, mature and validate data integration techniques, and demonstrate and validate an AI model operationalization architecture to cloud or edge endpoints.			
FY 2025 Plans:			

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army		Date: June 2025	
Appropriation/Budget Activity 2040 / 3	R-1 Program Element (Number/Name) PE 0603040A / <i>Artificial Intelligence and Machine Learning Advanced Technologies</i>	Project (Number/Name) DE9 / <i>AI Development Environment Advanced Technology</i>	

B. Accomplishments/Planned Programs (\$ in Millions)	FY 2024	FY 2025	FY 2026
<p>Will mature and demonstrate scalable Machine Learning Operations (MLOps) at echelon. Improve and optimize data interfaces for multi-cloud data lake repositories and data mesh technologies. Demonstrate advanced tools for Artificial Intelligence (AI) test, evaluation, verification and validation, and the security of AI models.</p> <p><i>FY 2026 Plans:</i> Will further improve the ability to connect to additional external data sources, refine the ability to manage collaborative development of AI/ML solutions, and improve the visibility of telemetry data collected via the MLOps pipeline; develop additional capabilities to expand the scope of technologies supported for AI model development, operationalization, and testing.</p> <p><i>FY 2025 to FY 2026 Increase/Decrease Statement:</i> Funding realigned from Program Element (PE) 0603040 / Project DE8 (AI Development Environment Applied Research) to support expedited development of platforms and the supporting infrastructure for AI model development.</p>			
Accomplishments/Planned Programs Subtotals	1.058	1.966	2.777

C. Other Program Funding Summary (\$ in Millions)
 N/A

Remarks

D. Acquisition Strategy
 N/A

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army										Date: June 2025		
Appropriation/Budget Activity 2040 / 3					R-1 Program Element (Number/Name) PE 0603040A / Artificial Intelligence and Machine Learning Advanced Technologies				Project (Number/Name) DN3 / AI Enabled Contested Logistics Spt Tools Adv Tech			
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
DN3: AI Enabled Contested Logistics Spt Tools Adv Tech	-	-	-	0.748	-	0.748	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note

AI Enabled Contested Logistics Spt Tools Adv Tech is a new start within the Artificial Intelligence and Machine Learning Advanced Technologies program in FY 2026.

In Fiscal Year (FY) 2026, this Project is a New Start

A. Mission Description and Budget Item Justification

This project provides AI-enabled contested logistics tools to warfighters for all platforms (legacy and future) at all echelons. This effort will improve data from systems of record and leverage additional data streams to provide a complete picture of logistics and sustainment operations in contested environments. This project will provide analysis of maintenance operations, asset visibility, and people personnel capacity to assess current and predict future unit readiness and reduce to logistics and sustainment decision making timelines in contested environments. These technologies will provide a suite of applications uniquely tailored to the end-user that demonstrates machine learning capabilities across the force with regards to contested logistics.

Work in this Project complements Program Element (PE) 0603040A (Artificial Intelligence and Machine Learning Advanced Technologies) / Project CN6 (Predictive Maintenance Advanced Technology).

The cited work is consistent with Under Secretary of Defense for Research and Engineering priority focus areas and the Army Modernization Strategy.

Work in this Project is performed by the Artificial Intelligence Integration Center (AI2C).

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2024	FY 2025	FY 2026
Title: Federated Predictive Logistics Adv Tech Dev	-	-	0.249
Description: This effort provides predictive logistics analytics by leveraging the collection and input of structured, quality data from the warfighter and networked sensors; validated and verified algorithms; and by leveraging artificially intelligent modeling machine learning models for use by maintainers, warfighters, and commanders to identify and quantify risk, effectively allocate and prioritize resources, and assess future courses of action in support of logistics and sustainment operations in contested environments.			
FY 2026 Plans:			

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army		Date: June 2025		
Appropriation/Budget Activity 2040 / 3	R-1 Program Element (Number/Name) PE 0603040A / <i>Artificial Intelligence and Machine Learning Advanced Technologies</i>	Project (Number/Name) DN3 / <i>AI Enabled Contested Logistics Spt Tools Adv Tech</i>		
B. Accomplishments/Planned Programs (\$ in Millions)				
Will provide the full spectrum of information necessary to integrate predictive logistics to include data streams for operations, personnel, and maintenance. Predictive modeling will focus on maturing predictive modeling techniques that increase decision making capabilities for the warfighter. FY 2025 to FY 2026 Increase/Decrease Statement: Funding realigned from Program Element (PE) 0603040A / Project CN6 (Predictive Maintenance Advanced Technology) to initiate a new effort.		FY 2024	FY 2025	FY 2026
Title: Contested Logistics Decision Support Tools Description: This effort will mature a light weight, containerized environment technologies that allows access to logistics and sustainment support tools in both an enterprise and disconnected, denied, intermittent and/or with limited bandwidth (DDIL) environment. This effort will demonstrate the utility of leveraging machine learning models for use by warfighters to identify and quantify risk, effectively allocate and prioritize resources, and assess future courses of action in support of logistics and sustainment operations in a contested environment. This effort will leverage machine learning models and analyze data incorporating unit operations, personnel and training to assess and predict unit readiness and future unit effectiveness conducting logistics and sustainment operations in contested environments. FY 2026 Plans: Will mature the architecture and implementation of data flows from the tactical edge to the enterprise; deliver predictive models from the enterprise back to the tactical edge based on modeling and decision requirements from warfighters. FY 2025 to FY 2026 Increase/Decrease Statement: Funding realigned from Program Element (PE) 0603040A / Project DE9 (AI Development Environment Advanced Technology)		-	-	0.499
Accomplishments/Planned Programs Subtotals		-	-	0.748
C. Other Program Funding Summary (\$ in Millions) N/A Remarks D. Acquisition Strategy N/A				

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Army										Date: June 2025		
Appropriation/Budget Activity 2040: Research, Development, Test & Evaluation, Army / BA 3: Advanced Technology Development (ATD)					R-1 Program Element (Number/Name) PE 0603041A / All Domain Convergence Advanced Technology							
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
Total Program Element	-	26.721	23.722	10.560	-	10.560	-	-	-	-	-	-
CM2: Collaborative Convergence Adv Tech Development	-	17.710	23.722	10.560	-	10.560	-	-	-	-	-	-
CM8: Convergence Battlefield Integration	-	1.011	-	-	-	-	-	-	-	-	-	-
DA4: All Domain Convergence Engineering & Architectures	-	8.000	-	-	-	-	-	-	-	-	-	-
A. Mission Description and Budget Item Justification												
The Program Element (PE) develops, matures, and demonstrates as part of a campaign of learning, technologies in an operational environment, learning from early failure and re-scope research to improve speed of response, scalability, interoperability and range of engagement. This PE will deliver technologies that will enable sensor to shooter applications, from tactical to strategic level, taking a system design approach in support of Army experimentation events and Department of Defense (DoD) Combined Joint All-Domain Command and Control (CJADC2). The research will enable optimal lethal and non-lethal effects across all domains using artificial intelligence and machine learning to improve how we recognize threats, augment and enhance leader decision-making, and replicate tactical behaviors to enable autonomous capabilities.												
Work in this PE complements PE 0603465A (Future Vertical Lift Advanced Technology), PE 0603462A (Next Generation Combat Vehicle Advanced Technology), and PE 0603463 (Network C3I Advanced Technology).												
The cited research is consistent with the Under Secretary of Defense for Research and Engineering Priority focus areas.												
The FY 2026 request was reduced by \$0.039 million for civilian personnel to optimize the workforce in compliance with Executive Order 14210, "Implementing the President's Department of Government Efficiency Workforce Optimization Initiative."												

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Army				Date: June 2025	
Appropriation/Budget Activity		R-1 Program Element (Number/Name)			
2040: Research, Development, Test & Evaluation, Army / BA 3: Advanced Technology Development (ATD)		PE 0603041A / All Domain Convergence Advanced Technology			
B. Program Change Summary (\$ in Millions)	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total
Previous President's Budget	33.332	23.722	27.764	-	27.764
Current President's Budget	26.721	23.722	10.560	-	10.560
Total Adjustments	-6.611	0.000	-17.204	-	-17.204
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-5.394	-			
• SBIR/STTR Transfer	-1.217	-			
• Adjustments to Budget Years	-	-	-17.204	-	-17.204
Change Summary Explanation					
Funding decrease in Fiscal Year (FY) 2026 from the previous PB to the current PB reflects the net effect of realignments to Program Element (PE) 0602184A (Soldier Applied Research), PE 0603462A (Next Generation Combat Vehicle Advanced Technology), and PE 0603463A (Network C3I Advanced Technology) for advanced manufacturing, human machine integration, and high tempo data driven decision tools.					

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army										Date: June 2025		
Appropriation/Budget Activity 2040 / 3					R-1 Program Element (Number/Name) PE 0603041A / All Domain Convergence A dvanced Technology				Project (Number/Name) CM2 / Collaborative Convergence Adv Tech Development			
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
CM2: Collaborative Convergence Adv Tech Development	-	17.710	23.722	10.560	-	10.560	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This Project develops and integrates critical persistent experimentation technologies and the architecture through which the persistent experimentation technologies will operate. This is accomplished using adaptive data fusion and task allocation algorithm to support the development of Artificial Intelligence (AI) decision support agents. This Project includes development of advanced methods for processing and information extraction for mission oriented tasks in support of tactical decision makers. Additionally, this Project will develop the scalable architecture solutions necessary to facilitate tactical data collection, movement, processing, storage and modeling and simulation necessary to enable mission command in multi-domain operations. Also, the Project will shape early programs to accelerate technologies and achieve sensor to shooter dominance.

Work in this Project complements Program Element (PE) 0602181A (All Domain Convergence Applied Research).

The cited research is consistent with the Under Secretary of Defense for Research and Engineering priority focus areas and the Army modernization strategy.

Work in this Project is performed by the Analysis Center, Command, Control, Computers, Communications, Cyber, Intelligence, Surveillance and Reconnaissance (C5ISR) Center, Ground Vehicle Systems Center (GVSC), and Aviation & Missile Center (AvMC).

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2024	FY 2025	FY 2026
Title: Joint Systems Integration	7.034	11.085	-
Description: This effort integrates and demonstrates tactical network and associated command, control, communication, computers, cyber, intelligence, surveillance and reconnaissance (C5ISR) technologies in Multi-Domain Operations (MDO) laboratory experiments through live, virtual, and constructive environments. The effort will integrate these technologies for? tactical ground, air, air and missile defense, fires, network platforms and other missions to demonstrate system of systems integration and evaluate operational performance in representative MDO scenarios during laboratory experiments.			
FY 2025 Plans: Will evaluate and demonstrate advancing C5ISR technologies through persistent lab-based risk reduction experimentation for Army; identify and mitigate, Joint and Coalition challenges with recommendations for experimentation in persistent environment. Improve lab-based risk reduction for larger scale demonstration events by resolving specific interoperability issues prior to			

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army		Date: June 2025		
Appropriation/Budget Activity 2040 / 3	R-1 Program Element (Number/Name) PE 0603041A / All Domain Convergence A dvanced Technology	Project (Number/Name) CM2 / Collaborative Convergence Adv Tech Development		
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2024	FY 2025	FY 2026
capstone event; continue to enhance replicated network environments under demanding and complex mixed electro-magnetic environments. FY 2025 to FY 2026 Increase/Decrease Statement: Funding increase reflects funding realignment to Program Element (PE) 0603463A (Network C3I Advanced Technology) / Project AQ8 (High Tempo Data Driven Decision Tools Adv Tech) to continue Network Portfolio efforts to mature and demonstrate a forward-looking integrated suite of state-of-the-art Live, Virtual and Constructive Networking tools.				
Title: Analytics for Convergence Technology Integration Description: Validate maturity of battlefield integration of Army ground and air assets with all sensor and command assets via the Tactical Network (TN) by collecting, providing, optimizing, and fully exploiting available data concerning system and system-of-systems interface performance and effectiveness. FY 2025 Plans: Will provide cyber threat representations and cyber vulnerability mitigation recommendations for design improvement; provide Denied, Degraded, Intermittent, and/or Limited (DDIL) electromagnetic environments to qualify emerging technologies for inclusion in the conduct of integrated Army Futures Command (AFC) experiments; reduce risks through laboratory-based / field-based technology integration experiments to optimize scalability of architecture solutions, to improve interface designs, and to exploit available data for mitigation recommendations. FY 2026 Plans: Will mature cyber and electromagnetic analytical methods and perform system resilience, human-system integration, and reliability analyses to address emerging threats in contested cyber and electromagnetic environments; reduce risks through laboratory-based / field-based technology integration experiments, optimize scalability of next generation Command and Control (C2) solutions, improve interface designs, and exploit available data for mitigation recommendations and inform development requirements for Army S&T technologies. FY 2025 to FY 2026 Increase/Decrease Statement: Funding decrease is an economic assumption.		2.890	5.038	4.046
Title: Convergence Ground and Aviation Platform Integration Description: Integration of ground and aviation efforts in direct support of maturing and demonstrating persistent experimentation capabilities. This effort matures and demonstrates ground vehicle technologies as an integrated system and system of systems to reduce sensor to shooter targeting time, increase real-time battlefield understanding and ensure communications across all echelons. It also integrates capabilities such as geo-location and identification of targets from Army aviation assets, air to ground situational awareness and target data exchange, exchange of unmanned asset control, advanced tactical and teaming behaviors,		7.786	7.599	-

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army		Date: June 2025	
Appropriation/Budget Activity 2040 / 3	R-1 Program Element (Number/Name) PE 0603041A / <i>All Domain Convergence Advanced Technology</i>	Project (Number/Name) CM2 / <i>Collaborative Convergence Adv Tech Development</i>	
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2024	FY 2025
synchronized data management, and efficient usage of air lethality assets. Lastly it focuses on the integration of ground and aviation capabilities to demonstrate Multi-Domain Operations as part of persistent experimentation.			
FY 2025 Plans: Will mature and demonstrate additional ground vehicle platforms, aviation integration, and applicable multi-service network communication and perform analytics to inform requirements for both present and future tactical and combat military air and ground platforms against a complex moving enemy in a Multi-Domain Operational environment.			
FY 2025 to FY 2026 Increase/Decrease Statement: Funding decrease reflects realignment to task Systems and Platform Integration within this Project.			
Title: Systems and Platform Integration		-	-
Description: Integration of systems and platforms efforts in direct support of maturing and demonstrating capabilities. This effort matures and demonstrates ground vehicle technologies as an integrated system and system of systems to reduce sensor to shooter targeting time, increase real-time battlefield understanding and ensure communications across all echelons. It also integrates capabilities such as geo-location and identification of targets from Army aviation assets, air to ground situational awareness and target data exchange, exchange of unmanned asset control, advanced tactical and teaming behaviors, synchronized data management, and efficient usage of air lethality assets. Lastly it focuses on the integration of systems and platforms capabilities to demonstrate Multi-Domain Operations as part of persistent experimentation.			6.514
FY 2026 Plans: Will mature and demonstrate technologies and behaviors for unmanned ground and air systems. These systems will primarily have modular mission payloads that will demonstrate increased lethality, survivability, situational awareness, and extended network communications from dismounted, mounted, and stationary Soldier operator control units. Will mature and demonstrate improved air-ground cooperative human-machine operations in contested, dynamic, and complex battlespace. Will evaluate interoperability of Joint-All Domain robotic capabilities, including advanced autonomous behaviors and fused battlespace situational understanding, through operationally relevant use case execution with ground forces.			
FY 2025 to FY 2026 Increase/Decrease Statement: Funding increase reflects realignment from task Convergence Ground and Aviation Platform Integration within this Project.			
Accomplishments/Planned Programs Subtotals		17.710	23.722
C. Other Program Funding Summary (\$ in Millions)			
N/A			

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army		Date: June 2025
Appropriation/Budget Activity 2040 / 3	R-1 Program Element (Number/Name) PE 0603041A / All Domain Convergence A dvanced Technology	Project (Number/Name) CM2 / Collaborative Convergence Adv Tech Development
C. Other Program Funding Summary (\$ in Millions)		
<u>Remarks</u> N/A		
<u>D. Acquisition Strategy</u> N/A		

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army										Date: June 2025		
Appropriation/Budget Activity 2040 / 3					R-1 Program Element (Number/Name) PE 0603041A / All Domain Convergence Advanced Technology				Project (Number/Name) CM8 / Convergence Battlefield Integration			
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
CM8: Convergence Battlefield Integration	-	1.011	-	-	-	-	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This Project integrates and demonstrates aided target detection and recognition, autonomous tactical behaviors, Artificial Intelligence (AI)-enabled decision support agent, and data management technologies in Multi-Domain Operations (MDO) field experiments. This Project integrates these technologies on tactical ground, air, air and missile defense, fires, network platforms and other missions to demonstrate reduced sensor to shooter timelines and evaluate operational performance in representative MDO scenarios during annual field experiments.

Work in this Project complements Program Element (PE) 0602181A (All Domain Convergence Applied Research).

The cited research is consistent with the Under Secretary of Defense for Research and Engineering priority focus areas and the Army Modernization Strategy.

B. Accomplishments/Planned Programs (\$ in Millions)	FY 2024	FY 2025	FY 2026
Title: Coordinated Lethality Advanced Development	1.011	-	-
Description: This effort investigates commercial off the shelf items to determine those with high reward for use in achieving lethality across domains.			
Accomplishments/Planned Programs Subtotals	1.011	-	-

C. Other Program Funding Summary (\$ in Millions)

N/A

Remarks

N/A

D. Acquisition Strategy

N/A

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army										Date: June 2025		
Appropriation/Budget Activity 2040 / 3					R-1 Program Element (Number/Name) PE 0603041A / All Domain Convergence A dvanced Technology				Project (Number/Name) DA4 / All Domain Convergence Engineering & Architectures			
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
DA4: All Domain Convergence Engineering & Architectures	-	8.000	-	-	-	-	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This Project enables critical engineering and architecture support to all Army modernization priorities as the Army pursues convergence. Full development of mature system and system of systems level architectures ensure objective and data-driven analyses can be performed on new Army technologies and modernization efforts. Development of digital engineering products for new Army technologies currently under development enable digital analyses and assessments to be performed rapidly and repeatedly prior to full scale field tests like Project Convergence.

The cited research is consistent with the Under Secretary of Defense for Research and Engineering priority focus areas and the Army Modernization Strategy.

B. Accomplishments/Planned Programs (\$ in Millions)	FY 2024	FY 2025	FY 2026
Title: Engineering for Architectures	8.000	-	-
Description: The engineering and architecture project provides critical systems engineering and codesigning of systems at the design phase in a digital engineering environment to improve performance and integration. This includes development and integration of architecture and engineering products from system level to a full system of systems level, models and simulations, software engineering, and other key efforts to support senior leader decisions.			
Accomplishments/Planned Programs Subtotals	8.000	-	-

C. Other Program Funding Summary (\$ in Millions)

N/A

Remarks

D. Acquisition Strategy

N/A

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Army	Date: June 2025
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Appropriation/Budget Activity 2040: Research, Development, Test & Evaluation, Army / BA 3: Advanced Technology Development (ATD)					R-1 Program Element (Number/Name) PE 0603042A / C3I Advanced Technology							
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
Total Program Element	-	18.590	21.889	15.028	-	15.028	-	-	-	-	-	-
CN3: Network Enabling University Adv Development	-	3.884	3.007	-	-	-	-	-	-	-	-	-
CX7: Intelligent Env Battlefield Awareness Adv Tech	-	6.162	7.968	7.448	-	7.448	-	-	-	-	-	-
CX8: Persistent Geophysical Sensing-Infrasound Adv Tech	-	2.539	3.137	1.951	-	1.951	-	-	-	-	-	-
CX9: Sensing in Contested Environments Adv Technologies	-	1.064	2.083	-	-	-	-	-	-	-	-	-
CZ5: Subterranean Detection and Monitoring Adv Tech	-	1.226	1.432	1.819	-	1.819	-	-	-	-	-	-
DB5: Enabling Long Standoff 3D (ELS3D) Adv Tech	-	1.007	1.502	2.586	-	2.586	-	-	-	-	-	-
DE7: Understanding Environment as a Threat Adv Tech	-	2.708	1.433	-	-	-	-	-	-	-	-	-
DI6: Anti-Tamper Advanced Tech Development	-	-	1.327	1.224	-	1.224	-	-	-	-	-	-

Note

Project DI6 (Anti-Tamper Advanced Tech Development) is a new start within PE 0603042A (C3I Advanced Technology) in FY 2025. Funding for DI6 (Anti-Tamper Advanced Tech Development) transitioned from PE 0602146A (Network C3I Technology) / AV5 (Protective Technologies) to support maturation to Technology Readiness Level 6 (TRL6) and transition of anti-tamper technologies into DoD and Army weapons systems.

A. Mission Description and Budget Item Justification

This Program Element (PE) matures, demonstrates, optimizes, and validates Network Command, Control, Communications, and Intelligence (C3I) technologies through the integration of future equipment and systems that improve overmatch and meet mission needs in the future operating environments. This PE provides mid-to-long term tactical C3I capabilities (e.g. networking, cyber, electronic warfare, Positioning, Navigation, and Timing (PNT), space, persistent surveillance) based upon promising technologies that address emerging and future threats, and includes research critical and unique to the Army and DoD. Efforts focus on advanced maturation and demonstration of materials, technologies, methodologies and systems that span the range from electronics, protective technologies, electronic warfare, and mission

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Army	Date: June 2025
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Appropriation/Budget Activity 2040: <i>Research, Development, Test & Evaluation, Army I BA 3: Advanced Technology Development (ATD)</i>	R-1 Program Element (Number/Name) PE 0603042A / <i>C3I Advanced Technology</i>
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support capabilities such as situational awareness. These efforts directly inform and transition key capabilities to Army programs of record that support the Army modernization priorities.

The cited research is consistent with the Under Secretary of Defense for Research and Engineering priority focus areas and the Army Modernization Strategy.

The FY 2026 request was reduced by \$0.471 million for Advisory and Assistance Services to promote efficiencies and advance the policies of the Administration in alignment with Executive Order 14222, "Implementing the President's Department of Government Efficiency Cost Efficiency Initiative."

The FY 2026 request was reduced by \$0.038 million for civilian personnel to optimize the workforce in compliance with Executive Order 14210, "Implementing the President's Department of Government Efficiency Workforce Optimization Initiative."

B. Program Change Summary (\$ in Millions)	<u>FY 2024</u>	<u>FY 2025</u>	<u>FY 2026 Base</u>	<u>FY 2026 OOC</u>	<u>FY 2026 Total</u>
Previous President's Budget	19.225	22.814	20.327	-	20.327
Current President's Budget	18.590	21.889	15.028	-	15.028
Total Adjustments	-0.635	-0.925	-5.299	-	-5.299
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-0.001	-			
• SBIR/STTR Transfer	-0.634	-			
• Adjustments to Budget Years	-	-0.925	-5.299	-	-5.299

Change Summary Explanation

Decrease in FY2026 is for Sensor Fuzed Weapons and to preserve Army training lands.

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army										Date: June 2025		
Appropriation/Budget Activity 2040 / 3					R-1 Program Element (Number/Name) PE 0603042A / C3I Advanced Technology				Project (Number/Name) CN3 / Network Enabling University Adv Development			
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
CN3: Network Enabling University Adv Development	-	3.884	3.007	-	-	-	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This Project matures and demonstrates advanced Network Command, Control, Communications, and Intelligence (C3I) technologies into future equipment and systems. This Project accelerates advanced technologies originating from extramural research in academia, will enable intelligent networks, self-sensing/self-healing network, network security, advanced teaming and operations in a Global Positioning System (GPS) degraded or denied GPS environment. This Project also accelerates the Army modernization in next generation Network and Assured Positioning, Navigation, and Timing (APNT) systems. Work in this Project will lead to emerging technologies in areas of strategic importance to the Army in communications and networking, by engaging competitively selected Universities.

Work in this Project complements Program Element (PE) 0602182A (C3I Applied Research) / Project CN4 (Network Enabling University Applied Research).

The work cited is consistent with the Under Secretary of Defense for Research and Engineering priority focus areas and the Army modernization strategy.

Work in this Project is performed by the Army Research Laboratory (ARL).

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2024	FY 2025	FY 2026
Title: Advanced Intelligent, Secure and Self-Sensing/Self-Healing Networks	0.405	0.873	-
Description: This effort matures and integrates advanced intelligent network solutions with autonomous or self-sensing intelligence to deny corruption, and/or attacks and to execute operational missions securely and reliably.			
FY 2025 Plans: Will optimize software simulation tools that provide environment-aware radio frequency (RF) pathloss calculations in Army relevant scenarios using terrain feature data from geospatial data sources; optimize artificial intelligence/machine learning (AI/ML) emerging technologies for network solutions, optimal network usage and network inference, RF-based deceptive tactical networks, improve cyber defense systems through secure and reliable ML, multimodal and multi-vantage sensing for joint inference, and network localization to enable a more intelligent and robust communications network.			
FY 2025 to FY 2026 Increase/Decrease Statement:			

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army			Date: June 2025		
Appropriation/Budget Activity 2040 / 3		R-1 Program Element (Number/Name) PE 0603042A / C3I Advanced Technology		Project (Number/Name) CN3 / Network Enabling University Adv Development	
B. Accomplishments/Planned Programs (\$ in Millions)			FY 2024	FY 2025	FY 2026
Funding decrease reflects a reduction in RF-based deceptive tactical networks work and cyber defense system improvements and reflects efforts to foster innovation and accelerate deployment of promising technology in support of alignment with congressional priorities.					
Title: Advanced Real-Time Tactical Networks Description: This effort develops tactical network technology platforms consisting of a fleet of ground and air vehicles that will perform an autonomous reconnaissance mission in a relevant environment. FY 2025 Plans: Will mature and demonstrate an information system functional orchestrator with real-time communications service over self-organizing nodes. Will utilize communication network, compute and information pathway status for orchestration and migration of components on substrate node to enable a resilient tactical network with reduced bandwidth requirements. FY 2025 to FY 2026 Increase/Decrease Statement: Funding decrease reflects efforts to foster innovation and accelerate deployment of promising technology in support of alignment with congressional priorities. Funding decrease reflects realignment to Program Element (PE) 0603464A (Long Range Precision Fires Advanced Technology) / Project CZ8 (PrSM Modular Payload Advanced Development).			1.259	1.625	-
Title: Advanced Sensors and Non-GPS PNT Systems Description: Develop advanced sensors with enhanced signal processing software/algorithms to improve assurance against both electronic and kinetic attacks relative to Global Positioning System (GPS), and that can provide matured Positioning, Navigation and Timing (PNT) technology in disrupted, degraded or denied GPS environments. FY 2025 Plans: Will mature and demonstrate supporting emerging requirements and technologies for PNT and alternatives to GPS, including performance and assurance improvements against both electronic and kinetic attacks relative to current state-of-the-art GPS, and that can provide PNT technology to users in disrupted, degraded or denied GPS environments; mature and demonstrate the integration of global navigation satellite systems (GNSS) global and tactical sensors, exploitation of Low Earth Orbit (LEO) satellites for robust PNT back up to GPS, and demonstrate capability on a sensor fusion framework. FY 2025 to FY 2026 Increase/Decrease Statement: Funding decrease reflects efforts to foster innovation and accelerate deployment of promising technology in support of alignment with congressional priorities. Funding realigned to Program Element (PE) 0602184A (Soldier Applied Research) / Project CN9 (Soldier Enabling University Applied Research).			2.220	0.509	-
Accomplishments/Planned Programs Subtotals			3.884	3.007	-

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army		Date: June 2025
Appropriation/Budget Activity 2040 / 3	R-1 Program Element (Number/Name) PE 0603042A / C3I Advanced Technology	Project (Number/Name) CN3 / Network Enabling University Adv Development
C. Other Program Funding Summary (\$ in Millions) N/A		
Remarks		
D. Acquisition Strategy N/A		

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army										Date: June 2025		
Appropriation/Budget Activity 2040 / 3					R-1 Program Element (Number/Name) PE 0603042A / C3I Advanced Technology				Project (Number/Name) CX7 / Intelligent Env Battlefield Awareness Adv Tech			
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
CX7: Intelligent Env Battlefield Awareness Adv Tech	-	6.162	7.968	7.448	-	7.448	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This Project optimizes and demonstrates technologies to allow Soldiers to maneuver faster around or through existing environmental (urban/industrial) conditions and physical landscape constraints. This effort matures and demonstrates web modules/software tools delivering advanced knowledge of geo-environmental infrastructure to mission planners. This Project delivers critical technologies that provide situational awareness for multi-source intelligence, particularly for anti-access/area denial (A2/AD) outside the continental United States (OCONUS) sites.

Work in this Project complements Program Element (PE) 0602182A (C3I Applied Research) / Project CX3 (Intelligent Env Battlefield Awareness Apl Tech).

The cited work is consistent with the Under Secretary of Defense for Research and Engineering priority focus areas and the Army Modernization Strategy.

Work in this Project is performed by the United States Army Engineer Research and Development Center Environmental Laboratory, Geospatial Research Laboratory, Information Technology Laboratory, Cold Regions Research and Engineering Laboratory, Construction Research Engineering Laboratory, and Geotechnical and Structures Laboratory.

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2024	FY 2025	FY 2026
Title: Geo-Forensics for Reconnaissance Exploitation	1.093	-	-
Description: This effort provides unique terrestrial patterns to describe and predict the geological, biological, and overall ecological information associated with anti-access/area denial (A2/AD) sites from the continental United States (CONUS) analogs.			
Title: Predictive Geographic Information Systems (GIS) Mapping (physical) Demonstration	1.203	2.073	2.069
Description: This effort reduces the impact of unknown and changing terrain conditions by automating the integration of disparate datasets and overlays of terrain obstacles producing a high-fidelity map that integrates soil composition, vegetation, hydrology, and permafrost/ice data.			
FY 2025 Plans: Will integrate soil models into a global soil mapping system incorporating cold region and hydrology effects using ground and surface water conditions to identify potential hazards of extreme cold weather on maneuverability corridors.			
FY 2026 Plans:			

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army		Date: June 2025		
Appropriation/Budget Activity 2040 / 3	R-1 Program Element (Number/Name) PE 0603042A / C3I Advanced Technology	Project (Number/Name) CX7 / Intelligent Env Battlefield Awareness Adv Tech		
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2024	FY 2025	FY 2026
Will integrate high resolution hydrological models into a global mapping system incorporating previous cold region conditions and soil texture efforts to establish a topologically sound geoinformation system for battlefield understanding.				
FY 2025 to FY 2026 Increase/Decrease Statement: Funding decrease reflects the planned lifecycle of this effort.				
Title: Hydrology Mapping Demonstrations Description: This effort matures and demonstrates data tools and models to support high-fidelity battlefield overlay maps that accurately show hydrologic/soil moisture threats (soil, hydrology, and snow/ice) not captured by current terrain mapping capabilities. FY 2025 Plans: Will mature the global watershed analog mapping tool to support the hydrologic computational framework to include flood zone, soil moisture, and run-off mapping. FY 2026 Plans: Will mature models that describe the seasonality of stream flow, stream flow characteristics, and location of inundated areas. FY 2025 to FY 2026 Increase/Decrease Statement: Funding decrease reflects the planned reduction of analog mapping and integration of model layers.		1.688	1.463	0.984
Title: Vegetation Property Demonstrations Description: This effort provides forest metrics with other Intelligent Environmental Battlefield Awareness Tech threat area parameters to inform global ecological analogues in areas with limited data. FY 2025 Plans: Will mature the framework for assignment of global forest analogs from U.S. Forest Service plot data. Will utilize high performance computing (HPC) resources to validate machine learning algorithms for the forest analog tool. FY 2026 Plans: Will validate global predictions using NATO country datasets to improve vegetation clustering and output predictions. FY 2025 to FY 2026 Increase/Decrease Statement: Funding decrease reflects the planned utilization of HPC resources for time reduction and the development of global analog predictions.		0.604	3.002	2.054
Title: Extreme Environmental Effects on Operations Demonstrations		1.574	1.430	2.086

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army		Date: June 2025	
Appropriation/Budget Activity 2040 / 3	R-1 Program Element (Number/Name) PE 0603042A / C3I Advanced Technology	Project (Number/Name) CX7 I Intelligent Env Battlefield Awareness Adv Tech	
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2024	FY 2025
<p>Description: This effort designs and develops modeling of natural terrain following extreme disturbances that impact operational environments such as wildfires, flash floods, earthquakes and landscape changes induced by high intensity military conflict.</p> <p>FY 2025 Plans: Will mature algorithms for seasonal snow and wildland fire hazards across complex terrains that captures terrain impediments.</p> <p>FY 2026 Plans: Will demonstrate mature algorithms that reduce the error and uncertainty of soil proxy database for landslide hazard analysis with improved data collection and validation.</p> <p>FY 2025 to FY 2026 Increase/Decrease Statement: Funding increase reflects the planned milestones for advanced data collection and to validate algorithms.</p>			
<p>Title: Terrestrial Ice Operations Demonstration</p> <p>Description: This effort will mature and demonstrate a capability that utilizes data tools and models to support projection of forces and materials on frozen inland water bodies, specifically located in complex Arctic and sub-Arctic environments.</p> <p>FY 2026 Plans: Will validate mature algorithms estimating lake ice load capacity with requirements for supporting force and material projection activities.</p> <p>FY 2025 to FY 2026 Increase/Decrease Statement: Funding increase reflects planned initiation of this effort.</p>		-	-
Accomplishments/Planned Programs Subtotals		6.162	7.968
C. Other Program Funding Summary (\$ in Millions) N/A			
Remarks			
D. Acquisition Strategy N/A			

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army										Date: June 2025		
Appropriation/Budget Activity 2040 / 3					R-1 Program Element (Number/Name) PE 0603042A / C3I Advanced Technology				Project (Number/Name) CX8 / Persistent Geophysical Sensing-Infrasound Adv Tech			
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
CX8: Persistent Geophysical Sensing-Infrasound Adv Tech	-	2.539	3.137	1.951	-	1.951	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This Project matures and demonstrates kitted hardware and software solutions that provide passive, persistent, non-line-of-sight, multi-modal sensing capable of providing fused battlefield intelligence for increased situational awareness in a dynamic operational environment. These technologies provide near-real-time data collection, processing, and alerting on evolving cross-domain threats including strategic and tactical fires, air and ground platforms, as well as critical transportation infrastructure (bridges) and explosive events with applications for deep sensing. These technologies deliver time-critical intelligence for engineer and intelligence communities to provide decisive advantage.

Work in this Project complements Program Element (PE) 0602182A (C3I Applied Research) / Project CX4 (Persistent Geophysical Sensing-Infrasound Apl Tech).

The cited work is consistent with the Under Secretary of Defense for Research and Engineering priority focus areas and the Army Modernization Strategy.

Work in this Project is performed at the United States Army Engineer Research and Development Center Geotechnical and Structures Laboratory, Coastal and Hydraulics Laboratory, Construction Engineering Research Laboratory, Cold Regions Research and Engineering Laboratory, Environmental Laboratory, and Information Technology Laboratory.

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2024	FY 2025	FY 2026
Title: Battlefield Intelligence by Geophysical Sensing (BIGS) Demonstration	2.539	3.137	-
Description: This effort matures and demonstrates geophysical and geo-sensing technologies to persistently assess battlefield elements to include infrastructure (algorithm refinements) and additional sources of interest, such as explosive and fires events and various threats. Optimization of the array sensors and geometry to improve array performance for new sources of interest while reducing logistics will also be matured and demonstrated. New detection and classification signal processing algorithms will be validated throughout the life of the task in a phased demonstration schedule.			
FY 2025 Plans: Will demonstrate full complement of automated algorithms for selected sources of interest with optimized array configurations and placement tools in a relevant environment (accounting for terrain/topography and meteorological effects).			
FY 2025 to FY 2026 Increase/Decrease Statement:			

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army		Date: June 2025	
Appropriation/Budget Activity 2040 / 3	R-1 Program Element (Number/Name) PE 0603042A / C3I Advanced Technology	Project (Number/Name) CX8 / Persistent Geophysical Sensing-Infrasound Adv Tech	
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2024	FY 2025
Funding decrease reflects planned milestones and conclusion of this effort and transition to Program Element 0602182A (C3I Applied Research) / Project CX4 (Persistent Geophysical Sensing-Infrasound-Tech).			
Title: Adaptable Wide Area Reconnaissance (AWARe) Demonstrations Description: This effort matures an easily emplaced, rapidly deployable, multi-modal geophysical tactical array for persistent, wide area, remote, non-line-of-sight monitoring for potential deep sensing to extend monitoring ranges and validates new processing techniques to allow for the battlespace awareness needed in Multi-Domain Operations in both Competition and Armed Conflict phases. Optimization of processing algorithms based on the edge processing concept will be validated through demonstration. FY 2026 Plans: Will demonstrate hardware supporting computing at the tactical edge to detect and localize threats of interest. Will evaluate a tactical array optimization tool. FY 2025 to FY 2026 Increase/Decrease Statement: FY 2026 funding increase due to planned initiation of this effort. This effort is a new start in FY 2026.		-	-
Accomplishments/Planned Programs Subtotals		2.539	3.137
C. Other Program Funding Summary (\$ in Millions)			
N/A			
Remarks			
D. Acquisition Strategy			
N/A			

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army										Date: June 2025		
Appropriation/Budget Activity 2040 / 3					R-1 Program Element (Number/Name) PE 0603042A / C3I Advanced Technology				Project (Number/Name) CX9 / Sensing in Contested Environments Adv Technologies			
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
CX9: Sensing in Contested Environments Adv Technologies	-	1.064	2.083	-	-	-	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This Project matures and demonstrates advanced sensor technologies that characterize hazards posed to warfighters by non-weaponized biological hazards in subterranean environments. Demonstrations of previously developed sensor packages and adaptive commercial off the shelf sensor technologies on existing unmanned ground vehicles (UGV) platforms to gather end-user feedback. The capabilities resulting from this project provide Soldiers the capability to understand biological hazards present in subterranean environments and take necessary steps to mitigate or avoid these threats.

Work in this Project complements Program Element (PE) 0602182A (C3I Applied Research) / Project CX5 (Sensing in Contested Environments Technologies).

The cited work is consistent with the Under Secretary of Defense for Research and Engineering priority focus areas and the Army Modernization Strategy.

Work in this Project is performed at the United States Army Engineer Research and Development Center Environmental Laboratory.

B. Accomplishments/Planned Programs (\$ in Millions)	FY 2024	FY 2025	FY 2026
Title: Non-traditional Threat Detection in Contested Environments Tech Description: This effort identifies, examines, prioritizes, and exploits commercial of the shelf capabilities from multiple sources that can accurately detect biological and water quality hazards relevant to operations in subterranean environments from point of ingress/egress to evaluate exposure potential and affects. FY 2025 Plans: Will optimize hardware to meet requirements. Will demonstrate macro biological threat detection at additional sites inside and outside the continental United States. FY 2025 to FY 2026 Increase/Decrease Statement: Funding decrease reflects the planned conclusion of this effort.	1.064	2.083	-
Accomplishments/Planned Programs Subtotals	1.064	2.083	-

C. Other Program Funding Summary (\$ in Millions)
N/A

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army		Date: June 2025
Appropriation/Budget Activity 2040 / 3	R-1 Program Element (Number/Name) PE 0603042A / C3I Advanced Technology	Project (Number/Name) CX9 / Sensing in Contested Environments Adv Technologies
C. Other Program Funding Summary (\$ in Millions)		
Remarks		
D. Acquisition Strategy		
N/A		

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army										Date: June 2025		
Appropriation/Budget Activity 2040 / 3					R-1 Program Element (Number/Name) PE 0603042A / C3I Advanced Technology				Project (Number/Name) CZ5 / Subterranean Detection and Monitoring Adv Tech			
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
CZ5: Subterranean Detection and Monitoring Adv Tech	-	1.226	1.432	1.819	-	1.819	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This Project validates and demonstrates advanced subterranean monitoring and vulnerability assessment technologies providing mobile and man-portable solutions to enhance survivability and threat awareness during urban operations and negate enemy subterranean operation advantage. This Project also optimizes and demonstrates enhanced technologies to detect tunnels and tunneling activity in complex and varied environments. These capabilities are critical to provide greater situational awareness of the subterranean domain and enhanced survivability for the Soldier.

Work in this Project complements Program Element (PE) 0602182A (C3I Applied Research) / Project CX6 (Subterranean Detection and Monitoring Apl Tech).

The cited work is consistent with the Under Secretary of Defense for Research and Engineering priority focus areas and the Army Modernization Strategy.

Work in this Project is performed by the United States Army Engineer Research and Development Center Geotechnical and Structures Laboratory, Construction Engineering Research Laboratory, Coastal and Hydraulics Laboratory and Cold Regions Research and Engineering Laboratory.

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2024	FY 2025	FY 2026
Title: Cavity Assessment in Variable Environments-Subterranean (CAVES) Demonstrations	1.226	1.432	1.819
Description: This effort validates and demonstrates an integrated suite of tunnel detection and perimeter security systems for application in variable terrain, and complex geologic environments, such as mountains, and hard rock geology common in the western pacific.			
FY 2025 Plans: Will mature and demonstrate systems in a simulated operational environment using selected technologies.			
FY 2026 Plans: Will optimize tunnel detection and perimeter security technologies through component level demonstrations of geophysical sensing technologies conducted in an operationally relevant environment.			
FY 2025 to FY 2026 Increase/Decrease Statement:			

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army		Date: June 2025		
Appropriation/Budget Activity 2040 / 3	R-1 Program Element (Number/Name) PE 0603042A / C3I Advanced Technology	Project (Number/Name) CZ5 I Subterranean Detection and Monitoring Adv Tech		
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2024	FY 2025	FY 2026
Funding increase reflects planned addition of workflows to optimize tunnel detection and perimeter security technologies of geophysical sensing technologies.				
Accomplishments/Planned Programs Subtotals		1.226	1.432	1.819
C. Other Program Funding Summary (\$ in Millions) N/A				
Remarks				
D. Acquisition Strategy N/A				

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army										Date: June 2025		
Appropriation/Budget Activity 2040 / 3					R-1 Program Element (Number/Name) PE 0603042A / C3I Advanced Technology				Project (Number/Name) DB5 / Enabling Long Standoff 3D (ELS3D) Adv Tech			
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
DB5: Enabling Long Standoff 3D (ELS3D) Adv Tech	-	1.007	1.502	2.586	-	2.586	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This Project will integrate and demonstrate and mature a low size, weight, and power (SWAP) laser transmitter, processing algorithms and calibration models tailored for higher resolution 3D data collections over larger areas from longer stand-off for mapping, Intelligence Surveillance and Reconnaissance (ISR) and targeting. Long standoff airborne collection of high-resolution quick turnaround 3D data is vital for mission planning, target detection and identification, fire control, autonomous navigation, kinetic targeting, and battle damage assessment. Existing light detection and ranging (LIDAR) systems are limited to short standoff and/or near-nadir collection, limiting their use against near-peer adversaries and restricting the provision of 3D data. The payoff will enable long standoff airborne collection of high-resolution quick turnaround 3D data through the development LIDAR subsystems and processing algorithms.

Work in this Project complements Program Element (PE) 0602182A (C3I Applied Research) / Project DB4 (Enabling Long Standoff 3D (ELS3D) Tech).

The cited work is consistent with the Under Secretary of Defense for Research and Engineering priority focus areas and the Army Modernization Strategy.

Work in this Project is performed by the United States Army Engineer Research and Development Center Geospatial Research Laboratory.

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2024	FY 2025	FY 2026
Title: Enabling Long Standoff 3D (ELS3D) Demonstration	1.007	1.502	2.586
Description: This effort will demonstrate and integrate a prototype airborne system to collect long standoff high-resolution quick turnaround 3D data. Sensors will be ruggedized for operation at very high altitudes for collection of high-resolution 3D data. This long standoff collection will meet Army needs for mapping, ISR, and targeting, and be of a sufficient SWAP to be integrated onto Army platforms.			
FY 2025 Plans: Will mature a calibration framework with rigorous error propagation, signal processing and image formation software in support of long standoff data collection.			
FY 2026 Plans: Will mature sensor design and performance metrics aligned to available hardware and identify needs for further hardware investment.			
FY 2025 to FY 2026 Increase/Decrease Statement:			

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army		Date: June 2025		
Appropriation/Budget Activity 2040 / 3	R-1 Program Element (Number/Name) PE 0603042A / C3I Advanced Technology	Project (Number/Name) DB5 / Enabling Long Standoff 3D (ELS3D) Adv Tech		
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2024	FY 2025	FY 2026
Funding increase reflects the planned milestones for the mature sensor design and aligned performance metrics.				
Accomplishments/Planned Programs Subtotals		1.007	1.502	2.586
C. Other Program Funding Summary (\$ in Millions)				
N/A				
Remarks				
D. Acquisition Strategy				
N/A				

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army										Date: June 2025		
Appropriation/Budget Activity 2040 / 3					R-1 Program Element (Number/Name) PE 0603042A / C3I Advanced Technology				Project (Number/Name) DE7 / Understanding Environment as a Threat Adv Tech			
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
DE7: Understanding Environment as a Threat Adv Tech	-	2.708	1.433	-	-	-	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		
A. Mission Description and Budget Item Justification												
This Project matures and demonstrates tools that provide capability to inform the Solider of different routes through a complex urban landscape. Optimizes tools that balance exposure to environmental threats with mission constraints to provide a risk versus reward capability of operating in different areas of the urban theater. This Project matures and demonstrates predictive software accurately integrating the risks of physical, chemical, and biological threats in an urban environment into route planning tools.												
Work in this Project complements Program Element (PE) 0602182A (C3I Applied Technology) / Project DE6 (Understanding the Environment as a Threat Tech).												
The cited work is consistent with the Under Secretary of Defense for Research and Engineering priority focus areas and the Army Modernization Strategy.												
Work in this Project is performed by the United States Army Engineer Research and Development Center Environmental Laboratory, Geospatial Research Laboratory, and Information Technology Laboratory.												
B. Accomplishments/Planned Programs (\$ in Millions)									FY 2024	FY 2025	FY 2026	
Title: Environmental Threat Technology Demonstrations for route planning									0.674	-	-	
Description: This effort matures and demonstrates a software tool that informs and balances the risk of exposure to environmental threats with maneuver constraints along potential routes. The software integrates the risks associated with different environmental matrices in complex urban environments and includes the capability for routing in off-road scenarios.												
Title: Hazard Prediction Demonstration									1.017	-	-	
Description: This effort matures and demonstrates a mission planning platform that provides Soldiers with a predictive visualization technology to identify, track and plan for industrial or commercial chemical/environmental threats in operational environments.												
Title: Subsurface Forensics Demonstration									1.017	1.433	-	
Description: This effort matures and demonstrates sensing technologies for TIC/TIMs to detect illicit activities with authentic wastewater treatment influent.												

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army		Date: June 2025		
Appropriation/Budget Activity 2040 / 3	R-1 Program Element (Number/Name) PE 0603042A / C3I Advanced Technology	Project (Number/Name) DE7 / Understanding Environment as a Threat Adv Tech		
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2024	FY 2025	FY 2026
FY 2025 Plans: Will demonstrate techniques for ultra-low detection levels of explosive constituents and other industrial and commercial chemical threats for reverse-point sourcing threats in dense urban and subterranean environments.				
FY 2025 to FY 2026 Increase/Decrease Statement: Funding decrease reflects the planned conclusion of this effort.				
Accomplishments/Planned Programs Subtotals		2.708	1.433	-
C. Other Program Funding Summary (\$ in Millions) N/A				
Remarks				
D. Acquisition Strategy N/A				

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army										Date: June 2025		
Appropriation/Budget Activity 2040 / 3					R-1 Program Element (Number/Name) PE 0603042A / C3I Advanced Technology				Project (Number/Name) DI6 / Anti-Tamper Advanced Tech Development			
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
DI6: Anti-Tamper Advanced Tech Development	-	-	1.327	1.224	-	1.224	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		
A. Mission Description and Budget Item Justification												
This Project matures and demonstrates Anti-Tamper tools, devices, and techniques that protect acquisition program systems and Critical Program Information (CPI) from evolving adversarial reverse engineering threats. Efforts are coordinated with Department of Defense (DoD) Executive Agent for Anti-Tamper.												
Work in this Project complements Program Element (PE) 0602146 (Protective Technologies) / Project AV5 (Protective Technologies).												
The cited work is consistent with the Under Secretary of Defense for Research and Engineering priority focus areas and the Army Modernization Strategy.												
Work in this Project is performed by the Aviation and Missile Center (AvMC).												
B. Accomplishments/Planned Programs (\$ in Millions)									FY 2024	FY 2025	FY 2026	
Title: Anti-Tamper Advanced Tech Development									-	1.327	1.224	
Description: This effort matures and demonstrates tools, devices, and techniques that protect acquisition program systems and (CPI) from adversarial reverse engineering threats.												
FY 2025 Plans: Will mature advanced microelectronics-based anti-tamper security solutions to allow for integration of these solutions in Army and DoD weapons systems to meet their Program Protection requirements.												
FY 2026 Plans: Will continue to mature, optimize and demonstrate Anti-Tamper tools, devices, techniques and technologies in support of U.S. Army and DoD Program Protection requirements.												
FY 2025 to FY 2026 Increase/Decrease Statement: Funding decrease is an economic adjustment.												
Accomplishments/Planned Programs Subtotals									-	1.327	1.224	
C. Other Program Funding Summary (\$ in Millions)												
N/A												

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army		Date: June 2025
Appropriation/Budget Activity 2040 / 3	R-1 Program Element (Number/Name) PE 0603042A / C3I Advanced Technology	Project (Number/Name) DI6 / Anti-Tamper Advanced Tech Development
C. Other Program Funding Summary (\$ in Millions)		
Remarks		
D. Acquisition Strategy		
N/A		

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Army **Date:** June 2025

Appropriation/Budget Activity 2040: Research, Development, Test & Evaluation, Army / BA 3: Advanced Technology Development (ATD)					R-1 Program Element (Number/Name) PE 0603043A / Air Platform Advanced Technology							
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
Total Program Element	-	13.648	17.076	41.266	-	41.266	-	-	-	-	-	-
CL4: Air Platform Enabling University Adv Development	-	1.317	1.466	-	-	-	-	-	-	-	-	-
CV1: Control & Autonomy for Tactical Superiority Adv	-	1.208	1.257	10.271	-	10.271	-	-	-	-	-	-
CV2: Structures Platform Int Resilience & Efficiency	-	3.236	5.148	6.520	-	6.520	-	-	-	-	-	-
CX1: Advanced Rotors Advanced Tech	-	2.560	2.689	7.463	-	7.463	-	-	-	-	-	-
DC3: HPC For Army Aviation Concepts	-	5.327	5.514	7.234	-	7.234	-	-	-	-	-	-
DK2: Air Vehicle Improvement & Adv Tech (AVIAte)	-	-	1.002	9.778	-	9.778	-	-	-	-	-	-

A. Mission Description and Budget Item Justification

This Program Element (PE) undertakes advanced technology efforts that support and enable the overall Army Aviation portfolio in general, and the Army's modernization priority for Future Vertical Lift (FVL). Vital and enduring research into advanced technologies is conducted pertinent to the air portfolio that supports mid-to-long term requirements in contested operational environments and technologies that have broad application to FVL modernization, as well as overall Army and specific Department of Defense (DoD) aviation needs.

Research in this PE contributes to the Army Science and Technology (S&T) air systems portfolio and is fully coordinated with efforts in PE 0602148A (Future Vertical Lift Technology), PE 0603465A (Future Vertical Lift Advanced Technology) and PE 0602183A (Air Platform Applied Research).

The cited research is consistent with the Under Secretary of Defense for Research and Engineering S&T focus areas and the Army Modernization Strategy.

Research in this PE is performed by the Army Research Laboratory (ARL), Aviation and Missiles Center (AvMC) and Information Technology Laboratory.

The FY 2026 request was reduced by \$0.592 million for Advisory and Assistance Services to promote efficiencies and advance the policies of the Administration in alignment with Executive Order 14222, "Implementing the President's Department of Government Efficiency Cost Efficiency Initiative."

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Army	Date: June 2025
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Appropriation/Budget Activity 2040: <i>Research, Development, Test & Evaluation, Army / BA 3: Advanced Technology Development (ATD)</i>	R-1 Program Element (Number/Name) PE 0603043A / <i>Air Platform Advanced Technology</i>
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The FY 2026 request was reduced by \$0.096 million for civilian personnel to optimize the workforce in compliance with Executive Order 14210, "Implementing the President's Department of Government Efficiency Workforce Optimization Initiative."

B. Program Change Summary (\$ in Millions)	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total
Previous President's Budget	14.165	17.076	35.538	-	35.538
Current President's Budget	13.648	17.076	41.266	-	41.266
Total Adjustments	-0.517	0.000	5.728	-	5.728
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	0.001	-			
• SBIR/STTR Transfer	-0.518	-			
• Adjustments to Budget Years	-	-	5.728	-	5.728

Change Summary Explanation

Funding increase in Fiscal Year (FY) 2026 from the previous PB to the current PB reflects realignments from Program Element (PE) 0602148A (Future Vertical Lift Technology) and PE 0603465A (Future Vertical Lift Advanced Technology) to fund innovative rotor design methodology and to mature and demonstrate technologies for implementation and flight testing on Army flying laboratories.

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army										Date: June 2025		
Appropriation/Budget Activity 2040 / 3					R-1 Program Element (Number/Name) PE 0603043A / Air Platform Advanced Technology				Project (Number/Name) CL4 / Air Platform Enabling University Adv Development			
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
CL4: Air Platform Enabling University Adv Development	-	1.317	1.466	-	-	-	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note

In FY 2026, Project CL4 / Air Platform Enabling University Adv Development is transitioned to Program Element 0603025A (Army Agile Innovation and Demonstration) / Project DA3 (Army Advanced Innovation).

A. Mission Description and Budget Item Justification

This Project focuses on experimentation and demonstration of advanced technologies originating from extramural applied research in academia pertaining to navigation/ routing, autonomous robotic vehicles, artificial intelligence and machine learning as applied to aerial mobility and maneuver, holistic survivability, teaming, integrated mission systems, air-launched effects, and other innovative air enabling applied research technologies, that will accelerate the Army modernization in next generation aerial vehicles. This Project will mature and integrate advanced efforts to focus more on mid to far-term Army modernization priorities while also maintaining delivery of near-term technologies fundamental to the modernization priorities. This effort conducts and demonstrates advanced technology efforts arising from academic research in all areas of strategic importance to Army Aviation in artificial intelligence / machine learning (AI/ML), autonomous teaming systems, survivability, aeromechanics, advanced vertical take-off and landing (VTOL) design & concepts, flight dynamics, vibration & noise control, propulsion, human factor engineering and structures and materials, etc., by bringing competitively selected Universities with research and development teams into Technical Alliances. The Project will continuously experiment with methods to identify, demonstrate and transition novel technology from entities that might not otherwise collaborate with the Department of Defense (DoD), with the end goal of accelerating the adoption of cutting-edge applied research technology for the warfighter in the Army aviation portfolio.

Work in this Project complements Program Element (PE) 0603465A (Future Vertical Lift Advanced Technology), PE 0603119A (Ground Advanced Technology), PE 0602148A (Future Vertical Lift Technology) and PE 0602183A (Air Platform Applied Research).

The work cited is consistent with the Under Secretary of Defense for Research and Engineering priority focus areas and the Army modernization strategy.

Work in this Project is performed by the Army Research Laboratory (ARL).

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2024	FY 2025	FY 2026
Title: Vertical Lift Advanced Technologies	1.317	1.466	-
Description: Conduct advanced development within academia to mature and integrate Vertical Lift research of promising and emerging technologies.			
FY 2025 Plans:			

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army		Date: June 2025			
Appropriation/Budget Activity 2040 / 3		R-1 Program Element (Number/Name) PE 0603043A / Air Platform Advanced Technology	Project (Number/Name) CL4 / Air Platform Enabling University Adv Development		
B. Accomplishments/Planned Programs (\$ in Millions)			FY 2024	FY 2025	FY 2026
Will mature and demonstrate the coordination of multiple land and air vehicles participating in an unmanned long-term reconnaissance operation using distributed command/control architecture despite communication delays and/or failures; mature and demonstrate rotorcraft emerging technologies through aeromechanics, advanced Vertical Takeoff and Landing (VTOL) design & concepts, and develop flight dynamics models to extend reach and agility. The benefit of this effort is it enables future vertical lift capability improvements.					
FY 2025 to FY 2026 Increase/Decrease Statement: Funding decrease reflects completion of this effort. Funding realigned to Program Element 0603025A (Army Agile Innovation and Demonstration) / Project DA3 (Army Advanced Innovation).					
Accomplishments/Planned Programs Subtotals			1.317	1.466	-
C. Other Program Funding Summary (\$ in Millions)					
N/A					
Remarks					
D. Acquisition Strategy					
N/A					

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army										Date: June 2025		
Appropriation/Budget Activity 2040 / 3					R-1 Program Element (Number/Name) PE 0603043A / Air Platform Advanced Technology				Project (Number/Name) CV1 / Control & Autonomy for Tactical Superiority Adv			
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
CV1: Control & Autonomy for Tactical Superiority Adv	-	1.208	1.257	10.271	-	10.271	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This Project will deliver advanced flight controls, autonomy technologies, and new handling qualities criteria are implemented and tested in a realistic environment to demonstrate their functionality and increase their technology readiness level (TRL). This Project also delivers demonstrated and matured flight controls and autonomy technologies at TRL 6 to transition partners.

Work in this Project complements Program Element (PE) 0602183A (Air Platform Applied Technology) / Project CU7 (Control & Autonomy for Tactical Superiority Tech).

The cited work is consistent with the Under Secretary of Defense for Research and Engineering priority focus areas and the Army modernization strategy.

Work in this Project is performed by the Aviation & Missile Center (AvMC).

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2024	FY 2025	FY 2026
Title: Adaptive Tactical Autonomy and Control (ATAC) Technology Demonstration	1.208	1.257	3.643
Description: Mature, integrate, and demonstrate advanced flight control technologies and state-of-the-art autonomy algorithms that provide Future Vertical Lift (FVL) aircraft with enhanced maneuverability and agility, reduced cognitive workload, improved survivability through damage tolerance, and the ability to operate on an autonomy spectrum from piloted to fully autonomous and exploit degraded environments as a force multiplier.			
FY 2025 Plans: Will explore pilot-assist/autonomous functions for autorotation such as automatically lowering of collective and configuring the aircraft for best autorotation airspeed; integrate and demonstrate concepts for transition of control between pilot and autonomous system and back.			
FY 2026 Plans: Will integrate and flight-test demonstrate methods for using estimation to compensate for failed sensors to enable graceful degradation; integrate and demonstrate non-emitting sensors on AvMC's flying laboratories.			
FY 2025 to FY 2026 Increase/Decrease Statement:			

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army		Date: June 2025		
Appropriation/Budget Activity 2040 / 3	R-1 Program Element (Number/Name) PE 0603043A / Air Platform Advanced Technology	Project (Number/Name) CV1 / Control & Autonomy for Tactical Superiority Adv		
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2024	FY 2025	FY 2026
Funding increase in FY26 supports flight-test demonstrations of new technologies in advanced flight controls and autonomy to increase Technology Readiness Levels.				
Title: Autonomy for Combat Environment Sustainment (ACES) Demo Description: This effort matures and integrates a tailored set of autonomy algorithms and technologies aimed at combat environment sustainment leveraging enduring fleet assets. Demonstrate technologies and capabilities through flight testing on Army flying laboratories. FY 2026 Plans: Will start integration of new hardware components needed to integrate AvMC's autonomy algorithms on Army research aircraft. FY 2025 to FY 2026 Increase/Decrease Statement: Funding increase reflects initiation of Autonomy for Combat Environment Sustainment (ACES) Demo. Funding realigned from Program Element (PE) 0603465A (Future Vertical Lift Advanced Technology) / Project AL9 (Holistic Sit Awareness and Dec Making Adv Tech).		-	-	6.628
Accomplishments/Planned Programs Subtotals		1.208	1.257	10.271
C. Other Program Funding Summary (\$ in Millions) N/A Remarks				
D. Acquisition Strategy N/A				

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army										Date: June 2025		
Appropriation/Budget Activity 2040 / 3					R-1 Program Element (Number/Name) PE 0603043A / Air Platform Advanced Technology				Project (Number/Name) CV2 / Structures Platform Int Resilience & Efficiency			
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
CV2: Structures Platform Int Resilience & Efficiency	-	3.236	5.148	6.520	-	6.520	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This Project will ensure a continuous stream of transition-ready critical structures advanced technologies for improvement of performance (via weight efficiency and multifunctionality for parasitic weight avoidance) and resilience (survivability, sustainment, and operational availability).

Work in this Project is fully coordinated with Program element (PE) 0602183A (Air Platform Applied Technology) / Project CU8 (Structures Tech for Enduring Efficient Resilience).

The cited work is consistent with the Under Secretary of Defense for Research and Engineering priority focus areas and the Army modernization strategy.

Work in this Project is performed by the Aviation & Missile Center (AvMC).

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2024	FY 2025	FY 2026
Title: Adaptive Resilient Engineered Structures (ARES)	3.236	5.148	6.520
Description: Mature, integrate, and demonstrate advanced structures technologies providing performance, survivability, and sustainment benefits with broad applicability across platform scale and role, enabling mission success for manned/unmanned Future Vertical Lift (FVL) platforms in the contested environment of multi-domain operations.			
FY 2025 Plans: Will mature, through building block testing, advanced structures technologies, quantifying their contribution to improved efficiency, performance, survivability, and sustainment (reliability and availability); leverage building block test results to integrate technologies and begin fabrication for demonstration exploiting the synergy of technologies including weight-saving, fatigue-tolerant, affordable, multifunctional, and damage-tolerant configurations for primary and secondary structure.			
FY 2026 Plans: Will demonstrate integration of lightweight, high-performance, affordable, air platform structures technologies analyzed against relevant environments. Technologies for improving structural durability, damage tolerance, weight efficiency, operational availability and repair will be demonstrated. The demonstrations will include physical articles and analysis of structural components, as well as selective testing to support technology insertion.			
FY 2025 to FY 2026 Increase/Decrease Statement:			

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army			Date: June 2025			
Appropriation/Budget Activity 2040 / 3		R-1 Program Element (Number/Name) PE 0603043A / Air Platform Advanced Technology		Project (Number/Name) CV2 / Structures Platform Int Resilience & Efficiency		
B. Accomplishments/Planned Programs (\$ in Millions)				FY 2024	FY 2025	FY 2026
Funding increase in FY 2026 reflects increased demonstration activities.						
Accomplishments/Planned Programs Subtotals				3.236	5.148	6.520
C. Other Program Funding Summary (\$ in Millions)						
N/A						
Remarks						
D. Acquisition Strategy						
N/A						

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army										Date: June 2025		
Appropriation/Budget Activity 2040 / 3					R-1 Program Element (Number/Name) PE 0603043A / Air Platform Advanced Technology				Project (Number/Name) CX1 / Advanced Rotors Advanced Technology			
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
CX1: Advanced Rotors Advanced Tech	-	2.560	2.689	7.463	-	7.463	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This Project investigates Future Vertical Lift (FVL) and other Army and Department of Defense (DoD) advanced drive train technologies that increase performance and double current drivetrain life cycles while improving their reliability and maintainability.

Work in this Project is fully coordinated with PE 0602183A (Air Platform Applied Technology) / Project CW3 (Advanced Rotors Applied Technology).

The cited work is consistent with the Under Secretary of Defense for Research and Engineering priority focus areas and the Army modernization strategy.

Work in this Project is performed by the Aviation & Missile Center (AvMC).

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2024	FY 2025	FY 2026
Title: Lightweight Durable Rotor Technologies	2.560	2.689	1.973
Description: This effort matures and demonstrates full scale, integrated durable rotor system technologies to improve rotor blade service lives and reduce maintenance costs aimed to satisfy future capability needs for aviation and FVL increased system durability, efficiency, speed, range, and payload. Potential technologies include lightweight and highly durable blade erosion protection, low power and more reliable blade deicing capability, more reliable rotor system sensors/instrumentation, reliable and durable rotor actuation, low drag/low part count hubs, and improved blade repair methodologies.			
FY 2025 Plans: Conduct durable rotor trade studies and start rotor system integration conceptual design.			
FY 2026 Plans: Will conduct design of durable rotor blade prototype.			
FY 2025 to FY 2026 Increase/Decrease Statement: Funding decrease reflects completion of durable rotor trade studies and efforts to foster innovation and accelerate deployment of promising technology in support of alignment with congressional priorities.			
Title: Innovative Rotor Design Methodology	-	-	5.490

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army		Date: June 2025	
Appropriation/Budget Activity 2040 / 3	R-1 Program Element (Number/Name) PE 0603043A / <i>Air Platform Advanced Technology</i>	Project (Number/Name) CX1 / <i>Advanced Rotors Advanced Technology</i>	
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2024	FY 2025
<p>Description: Full scale demonstration of Government led blade design optimized, including high fidelity Computational Fluid Dynamics / Computational Structural Dynamics analysis, for hover & forward flight. Activities include rotor blade fabrication, structural substantiation testing, airworthiness process, whirl testing, & flight testing.</p> <p>FY 2026 Plans: Will conduct rotor blade structural testing.</p> <p>FY 2025 to FY 2026 Increase/Decrease Statement: Funding increase reflects initiation of Innovative Rotor Design Methodology. Funding realigned from Program Element (PE) 0602148A (Future Verticle Lift Technology) Projects AK9 (Adv Teaming for Tactical Aviation Operations Tech) and AL8 (Holistic Situational Awareness and Dec Making Tech), PE 0603465A (Future Vertical Lift Advanced Technology) / Projects AK8 (Air Launched Effects Advanced Technology), AL1 (Adv Teaming for Tactical Aviation Oper Adv Tech), and AL9 (Holistic Sit Awareness and Dec Making Adv Tech).</p>			
Accomplishments/Planned Programs Subtotals		2.560	2.689
C. Other Program Funding Summary (\$ in Millions)			
N/A			
Remarks			
D. Acquisition Strategy			
N/A			

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army										Date: June 2025		
Appropriation/Budget Activity 2040 / 3					R-1 Program Element (Number/Name) PE 0603043A / Air Platform Advanced Technology				Project (Number/Name) DC3 / HPC For Army Aviation Concepts			
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
DC3: HPC For Army Aviation Concepts	-	5.327	5.514	7.234	-	7.234	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This Project matures and demonstrates the use of high-fidelity computational fluid dynamics for Future Vertical Lift (FVL) platforms through the utilization of Department of Defense (DoD) High- Performance Computing (HPC) and software tools for cutting-edge modeling and simulation, as well as adding software capabilities for workflow automation and design space exploration. Efforts in this Project are also applicable to the family of FVL and Future Tactical Unmanned Aircraft System (FTUAS) platforms.

Work in this Project complements PE 0602183A (Air Platform Applied Research).

The work cited is consistent with the Under Secretary of Defense for Research and Engineering Science and Technology focus areas and the Army Modernization Strategy.

Work in this Project is performed by the United States Army Engineer Research and Development Center Information Technology Laboratory.

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2024	FY 2025	FY 2026
Title: Advanced Computational Technologies for Army Aviation	5.327	3.022	-
Description: This effort supports FVL by utilizing advanced computational techniques leveraging automated design processes to expand computational testbeds in support of testing and evaluation. Increase high accuracy physics in modeling and simulation to optimize platforms for all operational environments and mission scenarios. Provide multi-fidelity computational models of candidate FLRAA and FTUAS platforms to support acquisition decision-makers.			
FY 2025 Plans: Will demonstrate and provide modeling and simulation capabilities for optimization of candidate future vertical lift platforms and upgrades.			
FY 2025 to FY 2026 Increase/Decrease Statement: Funding decrease reflects the planned conclusion of this effort.			
Title: Machine-Assisted Design and Evaluation	-	2.492	2.522

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army		Date: June 2025		
Appropriation/Budget Activity 2040 / 3	R-1 Program Element (Number/Name) PE 0603043A / Air Platform Advanced Technology	Project (Number/Name) DC3 / HPC For Army Aviation Concepts		
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2024	FY 2025	FY 2026
<p>Description: This effort matures advanced machine-assisted design algorithms to explore design spaces and improve resilience for Future Vertical Lift (FVL). Physics-informed machine learning will improve and augment high-fidelity simulation and expand availability of high-fidelity data for tradespace generation and analysis. Reinforcement learning and other computational exploration methods will improve evaluation of mission effectiveness of FVL platforms.</p> <p>FY 2025 Plans: Will develop physics informed machine learning to reduce simulation turnaround for rotorcraft. Will explore machine-guided tradespace generation and exploration for machine assisted design.</p> <p>FY 2026 Plans: Will demonstrate machine learning techniques that reduce rotorcraft simulation time. Will provide machine guided capability to aid in design exploration.</p> <p>FY 2025 to FY 2026 Increase/Decrease Statement: Funding increase reflects planned milestones for this effort.</p>				
<p>Title: Advanced Computational Environments</p> <p>Description: This effort provides a web-delivered, HPC-enabled computational environment to improve execution and transition of modeling and simulation activities in support of Future Vertical Lift (FVL). The computational environment demonstrates an advanced, extensible framework for putting new or improved methods directly in the hands of designers and evaluators.</p> <p>FY 2026 Plans: Will develop a web-delivered application to host capabilities for performing parameter sweeps using high-fidelity rotorcraft simulations on HPC resources.</p> <p>FY 2025 to FY 2026 Increase/Decrease Statement: Funding increase reflects planned initiation of this effort.</p>		-	-	1.802
<p>Title: Data Curation & Analysis Resource (DCAR)</p> <p>Description: This effort provides a suite of modular, generalizable capabilities designed to support integrated, cradle-to-grave, useful, and responsible workflows for data-driven decision-making in support of Future Vertical Lift.</p> <p>FY 2026 Plans: Develop a modular capability suite for streamlining, standardizing, and vetting the production of analysis-ready data and validated analytic models to support fleet-wide analysis and decision-making.</p> <p>FY 2025 to FY 2026 Increase/Decrease Statement:</p>		-	-	0.911

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army		Date: June 2025				
Appropriation/Budget Activity 2040 / 3		R-1 Program Element (Number/Name) PE 0603043A / Air Platform Advanced Technology	Project (Number/Name) DC3 / HPC For Army Aviation Concepts			
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2024			FY 2025	FY 2026
Funding increase reflects planned initiation of this effort.						
Title: Advanced Simulation for Army Aviation (ASAA) Description: This effort expands the application of high-fidelity simulation by reducing solution times and incorporating multi-disciplinary analysis through the integration of advanced aviation simulation and HPC-enabled coupled-physics modeling. FY 2026 Plans: Will develop a multi-disciplinary analysis of rotorcraft components through the integration of advanced aviation simulation and HPC-enabled coupled-physics modeling. FY 2025 to FY 2026 Increase/Decrease Statement: Funding increase reflects planned initiation of this effort.		-			-	1.999
Accomplishments/Planned Programs Subtotals		5.327			5.514	7.234
C. Other Program Funding Summary (\$ in Millions)						
N/A						
Remarks						
D. Acquisition Strategy						
N/A						

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army										Date: June 2025		
Appropriation/Budget Activity 2040 / 3					R-1 Program Element (Number/Name) PE 0603043A / Air Platform Advanced Technology				Project (Number/Name) DK2 / Air Vehicle Improvement & Adv Tech (AVIATe)			
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
DK2: Air Vehicle Improvement & Adv Tech (AVIATe)	-	-	1.002	9.778	-	9.778	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This project enhances Army aviation mission capability and address operational energy and environmental challenges. Includes the maturation, system integration, and demonstration of technologies including advanced engines, hybrid and electric systems, power and control allocation, propulsive power delivery, electric actuation, structures, and other technologies that enhance performance, efficiency or are critical to implementation up to the aircraft system level.

Work in this Project complements Program Element (PE) 0602183A (Air Platform Applied Technology) / Project DK1 (Air Vehicle Integrated & Alternative Tech (AVIATe)).

The cited research is consistent with the Under Secretary of Defense for Research and Engineering priority focus areas and the Army modernization strategy.

Work in this Project is performed by the Aviation & Missile Center (AvMC).

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2024	FY 2025	FY 2026
Title: Hybrid-Electric Aviation Technology (HEAT) Demonstration	-	1.002	9.778
Description: This effort focuses on developing data to assess the viability of meeting future rotorcraft motive and mission equipment power needs through demonstration of hybrid-electric technology up to the aircraft system level. Emphasis will be on analytical tool and technology maturation, identifying hybrid-electric applications through system design and optimization, executing risk mitigation through analysis and test, system integration, and addressing suitability aspects in order to inform and plan future transition into current fleet and FVL aircraft.			
FY 2025 Plans: Will begin scaled hybrid-electric system and integration laboratory efforts as a means to train, expand knowledge base, mitigate technical risk, calibrate models, and integrate and optimize hybrid-electric systems to inform and plan future transition efforts for the Army aviation fleet.			
FY 2026 Plans: Will partner with one or more Industry vendors to demonstrate critical technologies that enable military-suitable hybrid vertical take-off and landing (VTOL) aircraft at the system level; determine exact phase of entry into the design-build-test cycle during			

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army		Date: June 2025		
Appropriation/Budget Activity 2040 / 3	R-1 Program Element (Number/Name) PE 0603043A / Air Platform Advanced Technology	Project (Number/Name) DK2 / Air Vehicle Improvement & Adv Tech (AVIA Te)		
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2024	FY 2025	FY 2026
source selection; system level technology demonstration ground test systems, surrogate aircraft, or flight test articles will be identified; year 1 will consist of initial design and risk mitigation activities.				
FY 2025 to FY 2026 Increase/Decrease Statement: In FY26, it is anticipated that multi-year efforts to design, fabricate, and demonstrate a hybrid-electric, Army-operationally-focused aircraft will begin. This will be supplemented by parallel in-house risk mitigation work.				
Accomplishments/Planned Programs Subtotals		-	1.002	9.778
C. Other Program Funding Summary (\$ in Millions) N/A				
Remarks				
D. Acquisition Strategy N/A				

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Army **Date:** June 2025

Appropriation/Budget Activity 2040: <i>Research, Development, Test & Evaluation, Army / BA 3: Advanced Technology Development (ATD)</i>	R-1 Program Element (Number/Name) PE 0603044A / <i>Soldier Advanced Technology</i>
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COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
Total Program Element	-	1.170	14.094	18.143	-	18.143	-	-	-	-	-	-
CN8: <i>Soldier Enabled University Advanced Development</i>	-	0.566	6.835	-	-	-	-	-	-	-	-	-
CW1: <i>Technical-SAVVY Soldier Advanced Research</i>	-	0.604	1.047	1.360	-	1.360	-	-	-	-	-	-
DN4: <i>Joint Service Small Arms Adv Tech</i>	-	-	-	4.591	-	4.591	-	-	-	-	-	-
DO2: <i>Modernized Composites & Manufacturing Adv Dev</i>	-	-	-	3.000	-	3.000	-	-	-	-	-	-
EA7: <i>Enhanced Indirect Fire Adv Tech</i>	-	-	6.212	9.192	-	9.192	-	-	-	-	-	-

A. Mission Description and Budget Item Justification

This Program Element (PE) matures, optimizes, and validates applied research technologies to demonstrate improved capabilities and systems that advance Soldier and Squad lethality-overmatch and Soldier performance beyond those technologies planned within the Soldier Lethality Cross-Functional Team. Advanced technology research efforts focus on the maturation and integration of broad capabilities and systems that span a range of technical areas to address enduring Soldier needs. These efforts transition outputs to existing and emerging systems in support of continuing enhancement of Soldier capabilities. This PE will fund civilian salaries for in-house researchers/scientists and program managers collaborating with external subject matter experts in academia and industry who are leaders in these technology research areas.

The cited research is consistent with the Under Secretary of Defense for Research and Engineering priority focus areas and the Army Modernization Strategy.

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Army				Date: June 2025	
Appropriation/Budget Activity		R-1 Program Element (Number/Name)			
2040: Research, Development, Test & Evaluation, Army / BA 3: Advanced Technology Development (ATD)		PE 0603044A / Soldier Advanced Technology			
B. Program Change Summary (\$ in Millions)	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total
Previous President's Budget	1.214	10.133	13.384	-	13.384
Current President's Budget	1.170	14.094	18.143	-	18.143
Total Adjustments	-0.044	3.961	4.759	-	4.759
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-0.044	-			
• Adjustments to Budget Years	-	3.961	4.759	-	4.759
Change Summary Explanation					
Funding decrease In Fiscal Year (FY) 2026 from the previous PB to the current PB reflects the realignment to Program Element (PE) 0603025A (Army Advanced Innovation) to mature university-led research to advance military applications and demonstrate university technologies for field testing and validation.					

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army										Date: June 2025		
Appropriation/Budget Activity 2040 / 3					R-1 Program Element (Number/Name) PE 0603044A / Soldier Advanced Technology				Project (Number/Name) CN8 / Soldier Enabled University Advanced Development			
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
CN8: Soldier Enabled University Advanced Development	-	0.566	6.835	-	-	-	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note

In FY 2026, Project CN8 / Soldier Enabled University Advanced Development is transitioned to Program Element 0603025A (Army Agile Innovation and Demonstration) / Project DA3 (Army Advanced Innovation).

A. Mission Description and Budget Item Justification

This Project leverages advanced technological innovations from academia to accelerate the optimization and demonstration of improved capabilities and systems that advance Soldier and Squad lethality-overmatch and Soldier performance and meet mission needs in the future operating environments. This Project funds collaborative, enduring advanced extramural university-based maturation and demonstration of technologies and brings together competitively selected universities with Army research teams into Technical Alliances. This Project will focus efforts on mid- to far-term Army modernization priorities while also maintaining delivery of near-term technologies critical to supporting the modernization priorities. The technical scope of this Project includes the optimization, maturation and demonstration of overarching Soldier-centric technologies including human systems integration, simplified synthetic training environments, advanced protective materials, power and energy, Warfighter endurance, robotics, as well as other innovative Soldier enabled advanced research technologies that will accelerate the Army modernization in Synthetic Training Environment, and Soldier Lethality. This Project conducts advanced research and development leading to potential emerging technologies in areas of strategic importance to the Army in Soldier capabilities related to increased protection, performance, agility, situational awareness, and lethality. This Project will also continuously strive to engage and collaborate with entities that might not otherwise collaborate with the Department of Defense (DoD) to demonstrate and provide novel Soldier-centric technologies for accelerating the adoption of emerging technologies for the Warfighter in the Army Soldier portfolio.

The work cited is consistent with the Under Secretary of Defense for Research and Engineering priority focus areas and the Army modernization strategy.

Work in this Project is performed by the Army Research Laboratory (ARL).

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2024	FY 2025	FY 2026
Title: Advanced Soldier Performance and Training	0.566	6.835	-
Description: Mature and demonstrates Soldier capabilities related to increased protection, performance, agility, situational awareness, training, and lethality.			
FY 2025 Plans: Will mature and demonstrate the capture, warehousing, and manipulation of synthetic training data to support Commanders in making training and operational readiness decisions; mature and demonstrate technologies to monitor health, cognitive state			

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army		Date: June 2025		
Appropriation/Budget Activity 2040 / 3	R-1 Program Element (Number/Name) PE 0603044A / Soldier Advanced Technol ogy	Project (Number/Name) CN8 / Soldier Enabled University Advanced Development		
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2024	FY 2025	FY 2026
and readiness of Warfighters through digital biosensors; mature and demonstrate emerging Soldier related technologies related to increased protection, performance, agility, situational awareness, training, and lethality. The benefit of this effort is improved realistic training for decision making and improved understanding of a Soldier's cognitive load.				
FY 2025 to FY 2026 Increase/Decrease Statement: Funding decrease reflects completion of this effort. Funding realigned to Program Element (PE) 0603025A (Army Agile Innovation and Demonstration) / Project DA3 (Army Advanced Innovation).				
Accomplishments/Planned Programs Subtotals		0.566	6.835	-
C. Other Program Funding Summary (\$ in Millions) N/A				
Remarks				
D. Acquisition Strategy N/A				

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army										Date: June 2025		
Appropriation/Budget Activity 2040 / 3					R-1 Program Element (Number/Name) PE 0603044A / Soldier Advanced Technology				Project (Number/Name) CW1 / Technical-SAVVY Soldier Advanced Research			
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
CW1: Technical-SAVVY Soldier Advanced Research	-	0.604	1.047	1.360	-	1.360	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This project conducts applied technology development to provide critical breakthroughs in developing a "technologically" fluent force. This research will refine, adapt, and validate methods and measures to assess and develop the technological fluency (TF) of Soldiers across a career (TF Personnel Assessments) and technologies to maximize technological fluency resilience and performance in Soldiers and units (Maximizing TF). TF is defined as the ability of Soldier and units to use and rapidly adapt new and intelligent technologies without formal training on these technologies, and it will be a decisive factor in a future operating environment in which Soldiers and squads are teamed with increasingly sophisticated and evolving technologies. Soldiers and leaders in specialty areas (e.g., Cyber, and Emerging Tech) and general purpose forces will require increased technological aptitudes and skills to adapt emerging technologies to evolving mission sets and avoid being overmatched by Artificial Intelligence (AI)-enabled "smart" technologies.

This Project supports key Army needs and will coordinate and/or leverage findings of several PEs to include 0602184A (Soldier Applied Research), and 0603007A (Manpower, Personnel and Training Advanced Technology).

This research will be performed by the U.S. Army Research Institute (ARI) for Behavioral and Social Sciences, and in coordination with collaborative research between ARI and the Army Research Laboratory (ARL) performed within 0602184A (Soldier Applied Research).

The cited work is consistent with the Under Secretary of Defense for Research and Engineering priority focus areas, the Army modernization strategy, and the Army People Strategy.

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2024	FY 2025	FY 2026
Title: Soldier Technical Enhancement Advanced Research	0.604	1.047	1.360
FY 2025 Plans: Will validate assessment instruments to measure TF attributes. Will conduct preliminary analysis of proof-of-concept training methods to enhance TF performance.			
FY 2026 Plans: Will validate assessment protocols to measure TF attributes (e.g., a battery of assessments for TF attributes).			
FY 2025 to FY 2026 Increase/Decrease Statement:			

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army		Date: June 2025		
Appropriation/Budget Activity 2040 / 3	R-1 Program Element (Number/Name) PE 0603044A / Soldier Advanced Technology	Project (Number/Name) CW1 / Technical-SAVVY Soldier Advanced Research		
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2024	FY 2025	FY 2026
Funding increase reflects planned FY26 research to validate assessment protocols.				
Accomplishments/Planned Programs Subtotals		0.604	1.047	1.360
C. Other Program Funding Summary (\$ in Millions)				
N/A				
Remarks				
D. Acquisition Strategy				
N/A				

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army										Date: June 2025		
Appropriation/Budget Activity 2040 / 3					R-1 Program Element (Number/Name) PE 0603044A / Soldier Advanced Technology				Project (Number/Name) DN4 / Joint Service Small Arms Adv Tech			
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
DN4: Joint Service Small Arms Adv Tech	-	-	-	4.591	-	4.591	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This Project matures and demonstrates individual and crew-served armament systems; weapon, munitions, and fire control that enable increased capability, lethality, survivability and reduced negative health effects of the dismounted Warfighter across the Joint Services. This Project demonstrates blast overpressure characterization, monitoring and a wearable system that captures real-time physiological and blast exposure data to enable integrated Soldier monitoring in operational environments.

Work in this Project complements Program Element (PE) 0602148A (Soldier Applied Research) / Project DN2 (Joint Service Small Arms Enabling Tech).

The cited work is consistent with the Under Secretary of Defense for Research and Engineering priority focus areas and the Army modernization strategy.

Work in this Project is performed by the Armaments Center (AC).

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2024	FY 2025	FY 2026
Title: Joint Small Arms Advanced Tech (JSAAT)	-	-	4.591
Description: This effort matures and demonstrates advanced small arms ammunition, enablers, and weapon system technologies for integration into live fire demonstrations. It refines and optimizes weapon system integration in support of the Joint Warfighters' small arms capability needs at reduced size, weight, power, and cost. The effort improves small arms weapon system technology readiness levels and confidence of design functionality in advanced and emerging operating scenarios.			
FY 2026 Plans: Will provide improved performance to small arms weapons and munitions systems against future targets in relevant environments; optimize signature reduction devices and automated target recognition & engagement technologies; demonstrate hardware, software, and algorithms to improve small arms fire control targeting performance.			
FY 2025 to FY 2026 Increase/Decrease Statement: This is a new start effort in FY 2026. Funding realigned from: Program Element (PE) 0603118A / Project AY5 (Soldier Squad Small Arms Armaments Advanced Tech).			
Accomplishments/Planned Programs Subtotals	-	-	4.591

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army		Date: June 2025
Appropriation/Budget Activity 2040 / 3	R-1 Program Element (Number/Name) PE 0603044A / Soldier Advanced Technol ogy	Project (Number/Name) DN4 / Joint Service Small Arms Adv Tech
C. Other Program Funding Summary (\$ in Millions) N/A		
Remarks		
D. Acquisition Strategy N/A		

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army										Date: June 2025		
Appropriation/Budget Activity 2040 / 3					R-1 Program Element (Number/Name) PE 0603044A / Soldier Advanced Technology				Project (Number/Name) DO2 / Modernized Composites & Manufacturing Adv Dev			
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
DO2: Modernized Composites & Manufacturing Adv Dev	-	-	-	3.000	-	3.000	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note

Modernized Composites & Manufacturing Adv Dev is a new start within the Soldier Advanced Technology program in FY 2026.

A. Mission Description and Budget Item Justification

This Project matures and demonstrates advanced composite materials and manufacturing processes to deliver materials with properties to support broad applications across the DoD. Focus will be on properties required for understanding operation in future contested environments. This Project integrates manufacturing processes and advanced automation through additive, subtractive, and digital manufacturing sciences of novel composite materials, for use in both existing and future DoD-wide systems. The Project will use unique contract and collaborative approaches to accelerate transitions into and from university programs.?

Work in this Project complements Project Element (PE) 0602184A (Soldier Applied Research) / Project DO1 (Modernized Composites & Manufacturing).

The cited work is consistent with the Under Secretary of Defense for Research and Engineering Advanced Materials Critical Technology Area and the Army modernization strategy.

Work in this Project is performed by the Soldier Center (SC).

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2024	FY 2025	FY 2026
Title: Institute for Advanced Composites Engineering - Advanced Technology Development	-	-	3.000
Description: This effort will advance technology maturation associated with manufacturing technologies and advanced materials that support the unique needs of the Army in future operating environments, to include the challenges associated with sustaining distribution operations.			
FY 2026 Plans: Will competitively award the University Affiliated Research Center (UARC) via cooperative agreement or contract vehicle and establish technical objectives; exploit material properties for operations in future contested environments.			
FY 2025 to FY 2026 Increase/Decrease Statement:			

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army		Date: June 2025		
Appropriation/Budget Activity 2040 / 3	R-1 Program Element (Number/Name) PE 0603044A / Soldier Advanced Technology	Project (Number/Name) DO2 / Modernized Composites & Manufacturing Adv Dev		
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2024	FY 2025	FY 2026
In Fiscal Year (FY) 2026, this Project is a New Start. Funding realigned from Program Element 0602184A (Soldier Applied Research) / Project CN9 (Soldier Enabling University Applied Research).				
Accomplishments/Planned Programs Subtotals		-	-	3.000
C. Other Program Funding Summary (\$ in Millions) N/A				
Remarks				
D. Acquisition Strategy N/A				

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army										Date: June 2025		
Appropriation/Budget Activity 2040 / 3					R-1 Program Element (Number/Name) PE 0603044A / Soldier Advanced Technol ogy				Project (Number/Name) EA7 / Enhanced Indirect Fire Adv Tech			
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
EA7: Enhanced Indirect Fire Adv Tech	-	-	6.212	9.192	-	9.192	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This project matures and demonstrates enhancements to current mortar systems. This effort will provide solutions that increase the range and lethality of currently fielded systems and mitigate blast overpressure.

Work in this Project complements work done in Program Element (PE) 0602141A (Lethality Technology) / Project AH9 (Advanced Warheads Technology).

The cited work is consistent with the Assistant Secretary of Defense for Research and Engineering priority focus areas and the Army modernization strategy.

Work in this Project is performed by the Armaments Center (AC).

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2024	FY 2025	FY 2026
Title: Enhanced Range & Lethality Mortar System	-	6.212	9.192
Description: This effort demonstrates technology to support increased mortar system lethality and effective range across 81mm and 120mm calibers for enhanced Brigade Combat Team (BCT) operations.			
FY 2025 Plans: Will mature mortar cartridge and tube component technologies to extend the range of current 81mm fielded systems required to defeat current and emerging threats; mature mortar cartridge components including the airframe, propulsion systems, and payloads to increase lethal effects at extended ranges; optimize mortar system prototype to comply with safe firing standards.			
FY 2026 Plans: Will mature and demonstrate mortar airframe and propulsion systems to maximize range and accuracy. Will optimize lethal payloads to achieve maximum effects against current and emerging threats. Will mature cartridge packaging solutions for extended range mortar cartridges. Will mature and validate optimized mortar system components to comply with safe firing standards.			
FY 2025 to FY 2026 Increase/Decrease Statement: Funding increase reflects the planned demonstration of mortar airframe and propulsion systems.			
Accomplishments/Planned Programs Subtotals	-	6.212	9.192

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army		Date: June 2025
Appropriation/Budget Activity 2040 / 3	R-1 Program Element (Number/Name) PE 0603044A / Soldier Advanced Technol ogy	Project (Number/Name) EA7 / Enhanced Indirect Fire Adv Tech
C. Other Program Funding Summary (\$ in Millions) N/A		
Remarks		
D. Acquisition Strategy N/A		

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Army										Date: June 2025		
Appropriation/Budget Activity 2040: Research, Development, Test & Evaluation, Army / BA 3: Advanced Technology Development (ATD)					R-1 Program Element (Number/Name) PE 0603116A / Lethality Advanced Technology							
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
Total Program Element	-	70.529	49.629	13.232	-	13.232	-	-	-	-	-	-
BO7: Weapons & Munitions Adv Lethality Technology (CA)	-	49.000	19.000	-	-	-	-	-	-	-	-	-
CG2: Lethality Enabling University Adv Development	-	8.280	4.733	-	-	-	-	-	-	-	-	-
CH5: Terminal Effects Against Critical Targets Adv Tech	-	3.928	5.178	1.026	-	1.026	-	-	-	-	-	-
CID: Sensor to Shooter (STS) Advanced Technology	-	5.449	9.987	-	-	-	-	-	-	-	-	-
DB2: Future Armaments Scalable Technologies	-	3.872	6.123	6.949	-	6.949	-	-	-	-	-	-
LR1: Long Range Sensing Adv Tech	-	-	4.608	5.257	-	5.257	-	-	-	-	-	-
A. Mission Description and Budget Item Justification												
Work done in this Program Element (PE) matures technologies, methodologies, and models required to enable next generation lethality. The PE focuses on: lethal mechanism technologies for projectiles and warheads that provide revolutionary capability to defeat Tier 1 adversary vehicle and body armors; selection of propulsion and energetic materials and technology to validate novel energetic materials concepts to exploit controllable energy release for future gun/missile systems; scalable effects for mixed target defeat while simultaneously decreasing warhead mass; experimentation of materials solutions for improvement of weight and volume efficiency, lethal effects and sustainability for the warfighter in the Army of today and beyond; and multiple pathways to enhance lethal effects by investigating synergistic effects of novel micro warheads using advanced materials.												
This PE continues to mature and demonstrate technology developed under PE 0602141A (Lethality Technology).												
Work in this PE complements PE 0603118A (Soldier Lethality Advanced Technology), PE 0603462A (Next Generation Combat Vehicle Advanced Technology), PE 0603464A (Long Range Precision Fires Advanced Technology), 0603465A (Future Vertical Lift Advanced Technology), and 0603466A (Air and Missile Defense Advanced Technology).												
The cited research is consistent with the Under Secretary of Defense for Research and Engineering priority focus areas and the Army Modernization Strategy.												

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Army			Date: June 2025			
Appropriation/Budget Activity 2040: Research, Development, Test & Evaluation, Army / BA 3: Advanced Technology Development (ATD)		R-1 Program Element (Number/Name) PE 0603116A / Lethality Advanced Technology				
Research in this PE is performed by University Technologies Development Division (UTDD), GeoTechnical Instructors Laboratory, Armaments Center, Space and Missile Defense Technical Center and Command, Control, Communication, Computers, Cyber, Intelligence, Surveillance and Reconnaissance (C5ISR) Center.						
The FY 2026 request was reduced by \$0.031 million for Advisory and Assistance Services to promote efficiencies and advance the policies of the Administration in alignment with Executive Order 14222, "Implementing the President's Department of Government Efficiency Cost Efficiency Initiative."						
The FY 2026 request was reduced by \$0.077 million for civilian personnel to optimize the workforce in compliance with Executive Order 14210, "Implementing the President's Department of Government Efficiency Workforce Optimization Initiative."						
B. Program Change Summary (\$ in Millions)		FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total
Previous President's Budget		20.582	33.969	46.692	-	46.692
Current President's Budget		70.529	49.629	13.232	-	13.232
Total Adjustments		49.947	15.660	-33.460	-	-33.460
• Congressional General Reductions		-	-			
• Congressional Directed Reductions		-	-			
• Congressional Rescissions		-	-			
• Congressional Adds		49.000	19.000			
• Congressional Directed Transfers		-	-			
• Reprogrammings		1.643	-			
• SBIR/STTR Transfer		-0.696	-			
• Adjustments to Budget Years		-	-3.340	-33.460	-	-33.460
Congressional Add Details (\$ in Millions, and Includes General Reductions)						
Project: BO7: Weapons & Munitions Adv Lethality Technology (CA)						
Congressional Add: Hypersonic test range infrastructure						
Congressional Add: Robotic electric submersible vehicles						
Congressional Add: Autonomous long-range resupply						
Congressional Add: Hypersonics test range infrastructure						
Congressional Add Subtotals for Project: BO7						
Congressional Add Totals for all Projects						

FY 2024	FY 2025
35.000	-
14.000	-
-	4.000
-	15.000
49.000	19.000
49.000	19.000

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Army		Date: June 2025
Appropriation/Budget Activity 2040: Research, Development, Test & Evaluation, Army / BA 3: Advanced Technology Development (ATD)	R-1 Program Element (Number/Name) PE 0603116A / Lethality Advanced Technology	
<div>Change Summary Explanation</div> <div>Funding decrease in Fiscal Year (FY) 2026 from the previous PB to the current PB reflects the net effect of realignments to Program Element (PE) 0603464A (Long Range Precision Fires Advanced Technology); PE 0603462A (Next Generation Combat Vehicle Advanced Technology); PE 0603119A (Ground Advanced Technology); and PE 0602144A (Ground Technology)</div>		

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army										Date: June 2025		
Appropriation/Budget Activity 2040 / 3					R-1 Program Element (Number/Name) PE 0603116A / <i>Lethality Advanced Technology</i>				Project (Number/Name) BO7 / <i>Weapons & Munitions Adv Lethality Technology (CA)</i>			
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
BO7: <i>Weapons & Munitions Adv Lethality Technology (CA)</i>	-	49.000	19.000	-	-	-	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification
 Congressional Interest Item funding provided for Weapons and Munitions Advanced Lethality Technology.

 The cited work is consistent with the Under Secretary of Defense for Research and Engineering priority focus areas and the Army modernization strategy.

B. Accomplishments/Planned Programs (\$ in Millions)	FY 2024	FY 2025
<i>Congressional Add:</i> Hypersonic test range infrastructure	35.000	-
<i>FY 2024 Accomplishments:</i> Congressional Interest Item funding provided for Hypersonic test range infrastructure		
<i>Congressional Add:</i> Robotic electric submersible vehicles	14.000	-
<i>FY 2024 Accomplishments:</i> Congressional Interest Item funding provided for Robotic electric submersible vehicles		
<i>Congressional Add:</i> Autonomous long-range resupply	-	4.000
<i>FY 2025 Plans:</i> Congressional Interest Item funding provided for Autonomous long-range resupply		
<i>Congressional Add:</i> Hypersonics test range infrastructure	-	15.000
<i>FY 2025 Plans:</i> Congressional Interest Item funding provided for Hypersonics test range infrastructure		
Congressional Adds Subtotals	49.000	19.000

C. Other Program Funding Summary (\$ in Millions)
 N/A

Remarks

D. Acquisition Strategy
 N/A

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army										Date: June 2025		
Appropriation/Budget Activity 2040 / 3					R-1 Program Element (Number/Name) PE 0603116A / Lethality Advanced Technology				Project (Number/Name) CG2 / Lethality Enabling University Adv Development			
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
CG2: Lethality Enabling University Adv Development	-	8.280	4.733	-	-	-	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The Project leverages advanced developments and technological innovations from academia, lethal directed energy, laser diagnostics and accelerated design of future hypersonics, deep learning, novel materials, and emerging technologies of importance to the Army by maturing developments and performs demonstrations focused on getting technology to the warfighter more quickly. This Project exploits advanced research and development efforts to focus more on mid to far-term Army modernization priorities while also maintaining delivery of near-term technologies critical to the Long Range Precision Fires and Air and Missile Defense. This Project focuses on maturation and demonstration of various advanced technologies originating from extramural applied research in academia pertaining to lethal directed energy, laser diagnostics, future hypersonic glide body and scramjet propulsor design, deep learning, novel materials, and expansion of the Ballistic, Aero- Optics and Materials (B.A.M.) range applied to lethality. This effort validates advanced research and performs demonstrations leading to potential emerging technologies in areas of importance to the Army in directed energy, future hypersonic glide body design, deep learning and novel materials, etc., by bringing competitively selected Universities with research and development teams into Technical Alliances.

Work in this Project complements Program Element (PE) 0602141A (Lethality Technology) / Project CJ1 (Lethality Enabling University), PE 0602147A (Long Range Precision Fires), PE 0603464A (Long Range Precision Fires Advanced Technology) / Project BY2 (Advanced Hypersonic Technology)., and (PE) 0602150A (Air and Missile Defense Technology) / Project DC1 (Next Generation DE Concept Development & Analysis).

The cited work is consistent with Under Secretary of Defense for Research and Engineering priority focus areas and the Army modernization strategy.

Work in this Project is performed by the Army Research Laboratory (ARL).

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2024	FY 2025	FY 2026
Title: Laser Diagnostics for Hypersonics and Directed Energy	2.379	1.783	-
Description: This effort matures laser diagnostics to assess turbulence and boundary layer transition, leading to validation of hypersonic flight models and enhanced directed energy system effectiveness and range through improved targeting, prediction and beam control.			
FY 2025 Plans: Will mature and demonstrate measurement technologies to enable further understanding of hypersonic flow physics and the design and development of more agile, robust and higher efficiency hypersonic platforms. Develops higher fidelity			

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army		Date: June 2025		
Appropriation/Budget Activity 2040 / 3	R-1 Program Element (Number/Name) PE 0603116A / Lethality Advanced Technology	Project (Number/Name) CG2 / Lethality Enabling University Adv Development		
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2024	FY 2025	FY 2026
characterization of ground test facilities and the ability of the measurements to capture critical physical phenomena through the application of advanced laser-based technologies for diagnostics in hypersonic flows and related laser-based and spectroscopic diagnostic applications; improves the accuracy of propagation distortion predictions using high performance computer generated fully turbulent simulated environments; validates predictive tools using enclosed ranges with well quantified atmospheric conditions and the development of methods to correct for near field turbulence; incorporates the Ballistic Aero-Optics and Materials (BAM) range to validate data and improve test techniques. The benefits of this effort are long term reductions in test cost, improving the amount and quality of data gathered through ground testing, and increased effectiveness of directed energy systems. FY 2025 to FY 2026 Increase/Decrease Statement: Funding decrease reflects efforts to foster innovation and accelerate deployment of promising technology in support of alignment with congressional priorities.				
Title: Turbulence and Transition Modeling and Validation for Hypersonic Vehicles Description: This effort matures modeling turbulence and transition for hypersonic vehicles to accelerate design of future hypersonic glide bodies and systems through modeling and sub scale testing. FY 2025 Plans: Will improve tools for next generation flight systems and extending the operating envelope for current systems; incorporates the Ballistic Aero-Optics and Materials (BAM) range to validate data and improve test techniques. The benefits of this effort are a reduction in hypersonic glide body development life cycle timelines and reduction in flight testing required to achieve an optimal glide body design. FY 2025 to FY 2026 Increase/Decrease Statement: Funding decrease reflects planned completion of this effort. Funding realigned to Program Element (PE) 0603119A (Ground Advanced Technology) / Project CJ9 (Ground Enabling University Adv Development) and to PE 0602144A (Ground Technology) / Project CI2 (Ground Enabling University Applied Research).		2.928	1.557	-
Title: Novel Materials for Extreme Environments Description: This effort matures the development of novel materials for extreme environments. It validates computational and multiscale models of high strain rate materials to mitigate the effects of extreme environments and offer thermal protection. It matures and demonstrates material characteristics and improves likelihood of manufacturability and repair at scale. FY 2025 Plans: Will validate performance of specified materials exposed to extreme environments to enable optimization of new protective coatings designed for targeted functions; validate the ability of different materials and materials interfaces to withstand large		0.898	1.135	-

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army		Date: June 2025	
Appropriation/Budget Activity 2040 / 3	R-1 Program Element (Number/Name) PE 0603116A / <i>Lethality Advanced Technology</i>	Project (Number/Name) CG2 / <i>Lethality Enabling University Adv Development</i>	
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2024	FY 2025
<p>internal temperature gradients and stress; mature and demonstrate novel techniques to support carbon-carbon composite manufacturing, joining, and repair; matures and demonstrates emerging technologies in thermal protection and hypervelocity impact; incorporates the Ballistic Aero-Optics and Materials (BAM) range to validate data and improve test techniques. The benefits in this effort support improvements in thermal protection systems and manufacturing and repair techniques of specific novel materials.</p> <p><i>FY 2025 to FY 2026 Increase/Decrease Statement:</i> Funding decrease reflects efforts to foster innovation and accelerate deployment of promising technology in support of alignment with congressional priorities.</p>			
<p><i>Title:</i> Intelligent Hypersonics and Other Missile Defense Systems</p> <p><i>Description:</i> This effort matures and validates hypersonic vehicle flight systems with deep learning neural networks that can adapt to changing conditions and become more lethal. Integration of air and missile defense (AMD) command and control (C2) systems and their instrumentation, simulation, and stimulation.</p> <p><i>FY 2025 Plans:</i> Will mature and demonstrate emerging intelligent hypersonics technology, relevant hardware to optimize aerothermodynamic performance; mature, integrate and demonstrate emerging technologies for instrumentation, simulation, and stimulation of air and missile defense command and control systems. The benefits of this effort improve hypersonic flight adaptability and lethality.</p> <p><i>FY 2025 to FY 2026 Increase/Decrease Statement:</i> Funding decrease reflects planned completion of this effort.</p>		2.075	0.258
Accomplishments/Planned Programs Subtotals		8.280	4.733
C. Other Program Funding Summary (\$ in Millions)			
N/A			
Remarks			
D. Acquisition Strategy			
N/A			

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army										Date: June 2025		
Appropriation/Budget Activity 2040 / 3					R-1 Program Element (Number/Name) PE 0603116A / Lethality Advanced Technology				Project (Number/Name) CH5 / Terminal Effects Against Critical Targets Adv Tech			
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
CH5: Terminal Effects Against Critical Targets Adv Tech	-	3.928	5.178	1.026	-	1.026	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This Project matures and demonstrates engineering tools and high-fidelity modeling and simulation capabilities to predict and optimize weapon performance to ensure lethality against structures and critical assets. This project provides validated engineering tools and technologies to rapidly evaluate and predict weapon performance.

Work in this Project complements Program Element (PE) 0602141A (Lethality Technology) / Project CF8 (Terminal Effects Against Critical Targets Tech).

The work cited is consistent with the Under Secretary of Defense for Research and Engineering priority focus areas and the Army Modernization Strategy.

Work in this Project is performed by the United States Army Engineer Research and Development Center Geotechnical and Structures Laboratory.

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2024	FY 2025	FY 2026
Title: Advanced Terminal Effects Demonstration Description: Demonstrates and provides a predictive capability for terminal effects and lethality and a fast running engineering tool to support Long Range Precision Fires (LRPF) weaponeering on critical structural and geological targets of interest. FY 2025 Plans: Will demonstrate and provide BlastX engineering tool for advanced blast propagation and combined blast/fragmentation models for integration into Army and joint weaponeering systems and will provide semi-automated assessment/capabilities for battle damage assessment for implementation into Army and joint weaponeering systems. FY 2025 to FY 2026 Increase/Decrease Statement: Funding decrease reflects planned milestones and conclusion of this effort and subsequent alignment of funding to Program Element 0602141A (Lethality Technology) / Project CF8 (Terminal Effects Against Critical Targets Tech).	3.928	5.178	-
Title: Adaptive Technologies for Advanced Weapons Demonstrations Description: Demonstrate and provide predictive and analysis capability for terminal weapons effects of new advanced warheads and weapon systems with initial operational capabilities against geomaterials, structures, and other critical assets. FY 2026 Plans:	-	-	1.026

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army		Date: June 2025	
Appropriation/Budget Activity 2040 / 3	R-1 Program Element (Number/Name) PE 0603116A / <i>Lethality Advanced Technology</i>	Project (Number/Name) CH5 / <i>Terminal Effects Against Critical Targets Adv Tech</i>	
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2024	FY 2025
Will validate and demonstrate prediction and analysis of weapon effects codes for penetration of high velocity weapon systems against critical targets; mature and validate warhead models for enhanced penetration predictions and transition to JTCG/ME for integration into weaponeering software; validate advanced fast running blast predictive models for new warhead technologies.			
FY 2025 to FY 2026 Increase/Decrease Statement: FY 2026 funding increase due to planned initiation of this effort. This effort is a new start in FY 2026.			
Accomplishments/Planned Programs Subtotals		3.928	5.178
C. Other Program Funding Summary (\$ in Millions) N/A			
Remarks N/A			
D. Acquisition Strategy N/A			

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army										Date: June 2025		
Appropriation/Budget Activity 2040 / 3					R-1 Program Element (Number/Name) PE 0603116A / Lethality Advanced Technology				Project (Number/Name) CID / Sensor to Shooter (STS) Advanced Technology			
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
CID: Sensor to Shooter (STS) Advanced Technology	-	5.449	9.987	-	-	-	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This Project matures and demonstrates an advanced network lethality architecture to enable Joint All Domain Command and Control decision aid algorithms for coordinated and synchronized response and incorporates a full spectrum of effects and scalability to reduce the sensor to shooter timeline for Large Scale Combat Operations.

Work in this Project complements Program Element (PE) 0602141A (Lethality Technology) / Project CIB (Sensor to Shooter (STS) Applied Research).

The cited work is consistent with the Under Secretary of Defense for Research and Engineering priority focus areas and the Army modernization strategy.

Work in this Project supports Next Generation Combat Vehicle, Tactical Network, Future Vertical Lift, and Long-Range Precision Fires Army Modernization Priorities.

Work in this Project is performed by the Armaments Center and Command, Control, Computers, Communications, Cyber, Intelligence, Surveillance and Reconnaissance (C5ISR).

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2024	FY 2025	FY 2026
Title: Lethal Effects Architecture for Decision Synchronization Advanced Technology	5.449	8.102	-
Description: This effort demonstrates an enhanced decision aid architecture to automate synchronized effects, improve sensor to shooter interaction, and optimize threat engagement in support of Large-Scale Combat Operations in a joint all-domain command and control environment.			
FY 2025 Plans: Will demonstrate advanced algorithms for decision aids to reduce the effector to shooter timelines; demonstrate permissive airspace algorithms to improve coordination and reduce airspace deconfliction timelines; demonstrate sensor to shooter decision aid algorithms to incorporate non-kinetic effects into optimized recommendations across domains in support of future large scale combat operations; demonstrate scalable decision aid algorithms for processing increasing paired weapon-target solution sets in a dynamic battlespace.			
FY 2025 to FY 2026 Increase/Decrease Statement:			

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army		Date: June 2025	
Appropriation/Budget Activity 2040 / 3	R-1 Program Element (Number/Name) PE 0603116A / <i>Lethality Advanced Technology</i>	Project (Number/Name) CID / <i>Sensor to Shooter (STS) Advanced Technology</i>	
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2024	FY 2025
Funding decrease reflects realignment to Program Element (PE) 0603275A (Electronic Warfare Advanced Technology) / Project A72 (Sensor to Shooter (STS) Advanced Technology) as a part of the Department of Defense Capability Based (Agile) Funding pilot, which provides enhanced capabilities by fostering innovation and accelerated deployment of promising technology.			
Title: Real Time Multi-Int Support to Terminal Guidance Targeting (RTMTG) Description: This project extends intelligence targeting capabilities to support updating and/or altering onboard terminal guidance of emerging munitions while in flight for enhanced lethality. This project seeks to augment/adjust munition target seeking (e.g. coordinate seeking technology and Terrain Contour Matching (TERCOM)) and target identification capabilities post-launch to ensure that steel meets target. FY 2025 Plans: Will extend the Army's Advanced Field Artillery Tactical Data System (AFATDS) target selection standards to address the data requirements of advanced target-seeking munitions to support planning, coordinating, controlling, and executing fires and effects; connect these munitions with continuous intelligence over watch to update onboard terminal guidance while in-flight; align current efforts with system developers for AFATDS updates, Joint Targeting Integrated Command and Coordination Suite (JTIC2S) software development and the Tactical Intelligence Targeting Access Node (TITAN) development to ensure data types and formats can be seamlessly exchanged machine-to-machine across security domains. FY 2025 to FY 2026 Increase/Decrease Statement: Funding decrease reflects realignment to Program Element (PE) 0603275A (Electronic Warfare Advanced Technology) / Project A72 (Sensor to Shooter (STS) Advanced Technology) as a part of the Department of Defense Capability Based (Agile) Funding pilot, which provides enhanced capabilities by fostering innovation and accelerated deployment of promising technology.		-	1.885
Accomplishments/Planned Programs Subtotals		5.449	9.987
C. Other Program Funding Summary (\$ in Millions) N/A			
Remarks			
D. Acquisition Strategy N/A			

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army										Date: June 2025		
Appropriation/Budget Activity 2040 / 3					R-1 Program Element (Number/Name) PE 0603116A / Lethality Advanced Technology				Project (Number/Name) DB2 / Future Armaments Scalable Technologies			
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
DB2: Future Armaments Scalable Technologies	-	3.872	6.123	6.949	-	6.949	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		
A. Mission Description and Budget Item Justification												
Future Armaments Scalable Technologies addresses the need to enhance the capability of existing and future critical enabling technologies. This effort will mature critical armament component technologies in the areas of energetics & warheads, fuzing & sensing, guidance navigation and control (GNC), materials & structures in order to support critical technology insertions into program requirements.												
The cited work is consistent with the Under Secretary of Defense for Research and Engineering priority focus areas and the Army modernization strategy.												
Work in this Project is performed by the Armaments Center (AC).												
B. Accomplishments/Planned Programs (\$ in Millions)									FY 2024	FY 2025	FY 2026	
Title: Future Armaments Scalable Technology									2.229	6.123	3.926	
Description: This effort will mature and demonstrate armament sub-components to improve end item performance of critical enabling technologies.												
FY 2025 Plans: Will mature armament specific components for electronic safe and arm, thermal batteries for fuzing, and novel countermeasure solutions; improve performance of fuzing and sensing components, and energetic materials through gun firing; optimize advanced materials and technologies for future munition and weapon system capabilities for survival in extreme environments.												
FY 2026 Plans: Will demonstrate a full thermal reserve battery capable of providing power and energy for munition extended range applications utilizing advanced materials and the secondary heating element developed by this effort; validate the thermal reserve battery in a relevant environment; demonstrate an Electronic Safe and Arm Device (ESAD) capable of extended range application in a fully electronic fuze that has been ballistically fired to verify functionality.												
FY 2025 to FY 2026 Increase/Decrease Statement: Funding decrease is due to shifting S&T priorities and reflects efforts to foster innovation and accelerate deployment of promising technology.												
Title: CL-20 Hellfire Warhead Demo									-	-	2.422	

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army		Date: June 2025	
Appropriation/Budget Activity 2040 / 3	R-1 Program Element (Number/Name) PE 0603116A / <i>Lethality Advanced Technology</i>	Project (Number/Name) DB2 / <i>Future Armaments Scalable Technologies</i>	
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2024	FY 2025
<p>Description: This effort matures and demonstrates innovative warhead design for application with CL-20 based energetics. Optimizes warhead design parameters to improve performance relative to similar conventional warheads. Validates warhead design in a relevant environment.</p> <p>FY 2026 Plans: Will mature and demonstrate advanced CL-20 explosive formulations; optimize warhead design and assembly procedures and demonstrate performance metrics for system integration in a relevant environment.</p> <p>FY 2025 to FY 2026 Increase/Decrease Statement: Funding increase reflects initiation of CL-20 Hellfire Warhead Demo. Funding realigned from Program Element (PE) 0603116A (Lethality Advanced Technology) / Project CID (Sensor to Shooter (STS) Advanced Technology) and PE 0602141A (Lethality Technology) / Project CIB (Sensor to Shooter (STS) Applied Research)</p>			
<p>Title: Common Armament Guidance & Fuzing Tech (CAG-FT)</p> <p>Description: This effort provides a highly configurable, platform agnostic fuzing architecture that promotes scalability across commodity items, reduces logistical burden, and enables spiral technology upgrades to occur with minimal effect to the safety architecture.</p> <p>FY 2026 Plans: Will mature the design of a configurable fuzing architecture, optimizing interface configurability against a broad range of requirements, and improve the design through selection of common component footprints and functionality; assess common operational and technical requirements to validate design framework, optimizing the initial design of the fuze architecture schematic with demonstration of form factor standards.</p> <p>FY 2025 to FY 2026 Increase/Decrease Statement: Funding increase reflects initiation of Common Armament Guidance & Fuzing Tech (CAG-FT). Funding realigned from Program Element (PE) 0602147A (Long Range Precision Fires Technology) / Project AG4 (Extended Range Artillery Munition Suite Technology)</p>		-	0.601
<p>Title: Advanced Thermal Reserve Batteries for Long Range Precision Overmatch (ATRB)</p> <p>Description: This effort improves thermal battery runtime by incorporating thin-film electrodes, advanced materials, and internal heating elements. Mission assurance will be improved as thermal batteries become capable of meeting power and energy requirements for increased lethality at extended ranges.</p>		1.643	-
Accomplishments/Planned Programs Subtotals		3.872	6.123

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army		Date: June 2025
Appropriation/Budget Activity 2040 / 3	R-1 Program Element (Number/Name) PE 0603116A / <i>Lethality Advanced Technology</i>	Project (Number/Name) DB2 / <i>Future Armaments Scalable Technologies</i>
C. Other Program Funding Summary (\$ in Millions) N/A		
Remarks		
D. Acquisition Strategy N/A		

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army										Date: June 2025		
Appropriation/Budget Activity 2040 / 3					R-1 Program Element (Number/Name) PE 0603116A / Lethality Advanced Technology				Project (Number/Name) LR1 / Long Range Sensing Adv Tech			
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
LR1: Long Range Sensing Adv Tech	-	-	4.608	5.257	-	5.257	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		
A. Mission Description and Budget Item Justification												
This project develops the modeling and simulation tools, physics-based models, virtual and scaled radio frequency (RF) hardware and software prototypes to validate and mature adaptive multi-function resource management, tracking and discrimination algorithms, and radar sensor technologies in support of Long Range Precision Fires.												
Work in this Project complements Program Element (PE) 0602141A (Lethality Technology) / Project CG4 (Advanced Radar Concepts and Technologies).												
The cited research is consistent with the Under Secretary of Defense for Research and Engineering priority focus areas and the Army Modernization Strategy.												
Research in this Project is performed by the Command, Control, Communication, Computers, Cyber, Intelligence, Surveillance and Reconnaissance Center (C5ISR).												
B. Accomplishments/Planned Programs (\$ in Millions)									FY 2024	FY 2025	FY 2026	
Title: Adaptive Radar Multifunction Manager (ARMM) Adv Tech									-	4.608	5.257	
Description: Provides radar algorithms and software to enable communications between existing radar systems. Matures and demonstrates advanced techniques to enable adaptive multi- function resource management and expand the utility of current and future sensor technologies in support of Long-Range Precision Fires.												
FY 2025 Plans:												
Will mature and validate a system and physics model to conduct rapid performance investigations within a system in the loop environment emulator; exploit state-of-the-art software algorithm and determine impacts to counter fire radars; provide and mature resource management algorithms based on defined radar hardware utilization; further mature tracking and discrimination algorithms based on the system and physics model baseline.												
FY 2026 Plans:												
Will demonstrate advanced radar counterfire mode with improved range performance; will optimize resource management algorithms based on defined radar hardware utilization; will mature tracking, discrimination, and locator algorithms for expanded/ emerging counterfire threat sets.												
FY 2025 to FY 2026 Increase/Decrease Statement:												

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army		Date: June 2025		
Appropriation/Budget Activity 2040 / 3	R-1 Program Element (Number/Name) PE 0603116A / Lethality Advanced Technology	Project (Number/Name) LR1 / Long Range Sensing Adv Tech		
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2024	FY 2025	FY 2026
Funding increase reflects supports maturation of algorithms and initial capability demonstration and funding realigned to Program Element (PE) 0603462A (Next Generation Combat Vehicle Advanced Technology) / Project BF4 (Combat Vehicle Robotics Adv Tech) to support Human-Machine Integrated Formations (H-MIF)				
Accomplishments/Planned Programs Subtotals		-	4.608	5.257
C. Other Program Funding Summary (\$ in Millions)				
N/A				
Remarks				
D. Acquisition Strategy				
N/A				

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Army	Date: June 2025
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Appropriation/Budget Activity 2040: Research, Development, Test & Evaluation, Army / BA 3: Advanced Technology Development (ATD)					R-1 Program Element (Number/Name) PE 0603117A / Army Advanced Technology Development							
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
Total Program Element	-	140.980	-	-	-	0.000	-	-	-	-	-	-
BS2: Army Advanced Technology Development	-	140.980	-	-	-	-	-	-	-	-	-	-

A. Mission Description and Budget Item Justification

The Army Advanced Technology Development budget line includes development of subsystems and components and efforts to integrate subsystems and components into system prototypes for field experiments and/or tests in a simulated environment.

Efforts develop proof of technological feasibility and assessment of subsystem and component operability that may lead to full system development and prototyping.

B. Program Change Summary (\$ in Millions)	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total
Previous President's Budget	136.280	0.000	0.000	-	0.000
Current President's Budget	140.980	0.000	0.000	-	0.000
Total Adjustments	4.700	0.000	0.000	-	0.000
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	4.700	-			
• SBIR/STTR Transfer	-	-			

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Army										Date: June 2025		
Appropriation/Budget Activity 2040: Research, Development, Test & Evaluation, Army / BA 3: Advanced Technology Development (ATD)					R-1 Program Element (Number/Name) PE 0603118A / Soldier Lethality Advanced Technology							
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
Total Program Element	-	125.951	98.032	95.186	-	95.186	-	-	-	-	-	-
AY5: Soldier Squad Small Arms Armaments Advanced Tech	-	6.555	8.530	4.034	-	4.034	-	-	-	-	-	-
AY7: Small Arms Fire Control Advanced Technology	-	2.481	-	-	-	-	-	-	-	-	-	-
AY9: Body Armor & Integrated Headborne Advanced Tech	-	8.065	5.897	4.577	-	4.577	-	-	-	-	-	-
AZ6: Soldier Signature Management Advanced Technology	-	3.051	-	-	-	-	-	-	-	-	-	-
BB3: Dismounted Soldier Survivability Equip/Tech Integ	-	3.416	11.551	9.361	-	9.361	-	-	-	-	-	-
BB8: Soldier Centric Advanced Technology	-	1.833	-	-	-	-	-	-	-	-	-	-
BC1: Human Performance AdvTech for Mobility & Lethality	-	6.866	7.230	10.848	-	10.848	-	-	-	-	-	-
BC8: Training Advanced Technology (Other than STE)	-	7.411	8.073	22.644	-	22.644	-	-	-	-	-	-
BC9: Adv Soldier Sensors/ Displays AdvTech for Dismounts	-	26.470	24.041	25.684	-	25.684	-	-	-	-	-	-
BD7: Soldier Sys Interfaces/ Integration-Sensor AdvTech	-	7.011	6.338	4.662	-	4.662	-	-	-	-	-	-
BD9: Soldier & Sm Unit Tactical Energy AdvTech	-	9.082	-	-	-	-	-	-	-	-	-	-
BE2: Joint Service Combat Feeding Advanced Technology	-	2.632	2.678	2.749	-	2.749	-	-	-	-	-	-
BE5: Personnel & Airdrop Safety Advanced Technology	-	6.453	6.718	9.813	-	9.813	-	-	-	-	-	-
BE9: STE Advanced Technology	-	8.125	4.976	0.814	-	0.814	-	-	-	-	-	-

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Army	Date: June 2025
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Appropriation/Budget Activity 2040: <i>Research, Development, Test & Evaluation, Army</i> / BA 3: <i>Advanced Technology Development (ATD)</i>					R-1 Program Element (Number/Name) PE 0603118A / <i>Soldier Lethality Advanced Technology</i>							
BS8: <i>Soldier Lethality Advanced Technology</i>	-	26.500	12.000	-	-	-	-	-	-	-	-	-

A. Mission Description and Budget Item Justification

This Program Element (PE) matures and demonstrates Soldier Lethality technologies that improve Soldier operational performance by increasing lethality, mobility, protection, and optimizing situational awareness across the spectrum of operating environments and missions. This PE matures Soldier weapons and enabling components / subsystems, demonstrates lethal weapons systems with potential to provide greater lethality, target acquisition, fire control, and range at a significantly reduced weight for optimized Soldier and Small Unit system performance. The major focus areas for Soldier Lethality Science and Technology are Soldier weapons and ammunition technologies, protection technologies, cognitive and physical performance measures, training in synthetic training environments, and mission support capabilities such as situational awareness sensors and displays, dismounted power and energy technologies, and Soldier and Small Unit sustainment capabilities. This technology diverse PE also matures and demonstrates sensor technologies that increase Warfighter situational understanding, survivability, and lethality by providing sensor capabilities to acquire and engage all targets and threats at longer ranges in complex environments and operational conditions (e.g. day/night, obscured, smoke, adverse weather, and other degraded visual environments), and for advancing live training technologies that accurately replicate and realistically represent the effects of current and future weapons systems during force-on-force and force-on-target training. This PE matures and demonstrates effective technology in personal combat clothing, protective equipment such as personal armor, helmets, and eyewear, combat rations, shelters, logistical support items for aerial delivery of personnel and cargo, and energy systems to power current and emerging Soldier-born Intelligence, Surveillance, and Reconnaissance (ISR), sensor, optical, and communication systems with the least weight and sustainment burden on the Soldiers and Small Combat Units. This PE also matures and demonstrates technologies supporting the Army's Synthetic Training Environment (STE), a single, interconnected synthetic training system that will enable Army units and leaders to conduct realistic multi-echelon / multi-domain combined arms maneuver and mission command training, increasing proficiency through repetition. A specific research thrust area is applying systems-based practices to mature and demonstrate scientific and tailored knowledge of Soldiers' physical and cognitive architecture to facilitate rapid and efficient designs, assessments and trade-off analyses of technology insertions on the Soldier. Significant science and technology (S&T) investments are directed to improve the effectiveness of the technologies a Soldier utilizes while reducing the size and weight of the form factor of the equipment.

Research in this PE complements PE 0602143A (Soldier Lethality Technology).

The FY 2026 request was reduced by \$3.181 million for Advisory and Assistance Services to promote efficiencies and advance the policies of the Administration in alignment with Executive Order 14222, "Implementing the President's Department of Government Efficiency Cost Efficiency Initiative."

The FY 2026 request was reduced by \$0.568 million for civilian personnel to optimize the workforce in compliance with Executive Order 14210, "Implementing the President's Department of Government Efficiency Workforce Optimization Initiative."

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Army				Date: June 2025	
Appropriation/Budget Activity		R-1 Program Element (Number/Name)			
2040: Research, Development, Test & Evaluation, Army / BA 3: Advanced Technology Development (ATD)		PE 0603118A / Soldier Lethality Advanced Technology			
B. Program Change Summary (\$ in Millions)	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total
Previous President's Budget	102.778	94.899	118.236	-	118.236
Current President's Budget	125.951	98.032	95.186	-	95.186
Total Adjustments	23.173	3.133	-23.050	-	-23.050
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-7.577			
• Congressional Rescissions	-	-			
• Congressional Adds	26.500	12.000			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-0.694	-			
• SBIR/STTR Transfer	-2.633	-			
• Adjustments to Budget Years	-	-1.290	-23.050	-	-23.050
Congressional Add Details (\$ in Millions, and Includes General Reductions)				FY 2024	FY 2025
Project: BS8: Soldier Lethality Advanced Technology					
Congressional Add: advanced female body armor				7.000	-
Congressional Add: Inspection scanners with computing machine learning				2.000	-
Congressional Add: Military footwear research				10.000	5.000
Congressional Add: personal air mobility capability				2.500	-
Congressional Add: squad operations advanced resupply				5.000	-
Congressional Add: Enhanced head protection system				-	2.000
Congressional Add: Foundational models for generative AI				-	5.000
Congressional Add Subtotals for Project: BS8				26.500	12.000
Congressional Add Totals for all Projects				26.500	12.000
Change Summary Explanation					
Funding decrease in Fiscal Year (FY) 2026 from the previous PB to the current PB reflects realignment to Program Element (PE) 0603464A (Long Range Precision Fires Advanced Technology) for Sensor-Fuzed Weapon. The decrease reflects realignment of funding to PE 0602143 (Soldier Lethality Applied Technology) to support next generation mobility and lethality human performance analytics for Decision Dominance.					

FY 2024	FY 2025
7.000	-
2.000	-
10.000	5.000
2.500	-
5.000	-
-	2.000
-	5.000
26.500	12.000
26.500	12.000

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army										Date: June 2025		
Appropriation/Budget Activity 2040 / 3					R-1 Program Element (Number/Name) PE 0603118A / <i>Soldier Lethality Advanced Technology</i>				Project (Number/Name) AY5 / <i>Soldier Squad Small Arms Armaments Advanced Tech</i>			
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
AY5: <i>Soldier Squad Small Arms Armaments Advanced Tech</i>	-	6.555	8.530	4.034	-	4.034	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This Project demonstrates individual and crew-served weapon designs and technologies that enhance the fighting capabilities and survivability of the dismounted Warfighter in support of the Army's Soldier Lethality Modernization priority and all of the Services. This Project matures blast overpressure characterization, monitoring and a wearable system that captures real-time physiological and blast exposure data to enable integrated Soldier monitoring in operational environments. All work is led by the Joint Service Small Arms Program (JSSAP) and is based upon the Joint Service Small Arms Master Plan (JSSAMP) and the Joint Capabilities Integration Development System's Small Arms Analyses.

Work in this Project complements Program Element (PE) 0602143A (Soldier Lethality Technology) / AY6 (Soldier Squad Small Arms Armaments Technology).

The cited work is consistent with the Under Secretary of Defense for Research and Engineering priority focus areas and the Army modernization strategy.

Work in this Project is performed by the Armaments Center (AC).

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2024	FY 2025	FY 2026
Title: Small Arms Technology Demonstration	6.555	6.666	-
Description: This effort matures and demonstrates advanced small arms ammunition, enablers, and weapon system technologies for integration into live fire demonstrations. It refines and optimizes weapon system integration and supports the Joint Warfighters' small arms capability needs. The effort validates small arms weapon system technology readiness levels and confidence of design functionality in advanced and emerging operating scenarios.			
FY 2025 Plans: Will optimize weapon and munition prototypes to improve small arms system performance against future targets in relevant environments; optimize signature reduction devices and automated target recognition and engagement technologies based on validation results; demonstrate hardware, software, and algorithms to improve small arms fire control targeting performance.			
FY 2025 to FY 2026 Increase/Decrease Statement: FY 2026 funding decrease reflects conclusion of this effort and restructure within the Project supporting Joint Small Arms Advanced Tech (JSAAT).			
Title: Medium Machinegun for Maneuvers (Mounted and Dismounted) Technology (M4DT)	-	1.864	4.034

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army		Date: June 2025	
Appropriation/Budget Activity 2040 / 3	R-1 Program Element (Number/Name) PE 0603118A / Soldier Lethality Advanced Technology	Project (Number/Name) AY5 / Soldier Squad Small Arms Armaments Advanced Tech	
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2024	FY 2025
<p>Description: This effort demonstrates feasibility of advanced small arms weapon, ammunition, enablers, and subsystem concepts by means of live-fire demonstrations and Soldier assessment. Mature small caliber gun system technologies to achieve infantry mobility needs and increase lethality.</p> <p>FY 2025 Plans: Will mature small arms concepts and models for target defeat, target suppression, and future operational needs; analyze high-risk components of machine gun, ammunition, and fire control subsystems for maturation and future demonstration; demonstrate system weight optimization through material selection and advanced system designs.</p> <p>FY 2026 Plans: Will mature modeling and simulation of advanced small arms concepts by integrating projectile concept technologies into small caliber cartridges. Will improve ammunition, fire control, and operating group system technologies for enhanced performance. Will mature Future Medium Machine Gun test bed/surrogate for concept technology performance validation.</p> <p>FY 2025 to FY 2026 Increase/Decrease Statement: Funding increase reflects the planned demonstration of ammunition, fire control, and operation group concepts with a surrogate Future Medium Machine Gun.</p>			
Accomplishments/Planned Programs Subtotals		6.555	8.530
C. Other Program Funding Summary (\$ in Millions)			
N/A			
Remarks			
D. Acquisition Strategy			
N/A			

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army										Date: June 2025		
Appropriation/Budget Activity 2040 / 3					R-1 Program Element (Number/Name) PE 0603118A / <i>Soldier Lethality Advanced Technology</i>				Project (Number/Name) AY7 / <i>Small Arms Fire Control Advanced Technology</i>			
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
AY7: <i>Small Arms Fire Control Advanced Technology</i>	-	2.481	-	-	-	-	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This Project matures and demonstrates fire control and targeting sensor technologies and techniques to improve targeting and lethality in order to maintain overmatch at longer ranges in all operational environments and to meet the capability needs of Army Science and Technology Soldier Lethality, Next Generation Combat Vehicle, and Long-Range Precision Fires modernization priorities.

Work in this Project complements Program Element (PE) 0602143A (Soldier Lethality Technology) / AY8 (Small Arms Fire Control Technology).

The cited work is consistent with the Under Secretary of Defense for Research and Engineering priority focus areas and the Army modernization strategy.

Work in this Project is performed by the Armaments Center (AC).

B. Accomplishments/Planned Programs (\$ in Millions)	FY 2024	FY 2025	FY 2026
Title: Advanced Fire Control Tech	2.481	-	-
Description: This effort will mature and demonstrate fire control and targeting sensor technologies and techniques to improve targeting and lethality, and maintain overmatch at longer ranges in all environments.			
Accomplishments/Planned Programs Subtotals	2.481	-	-

C. Other Program Funding Summary (\$ in Millions)

N/A

Remarks

D. Acquisition Strategy

N/A

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army										Date: June 2025			
Appropriation/Budget Activity 2040 / 3					R-1 Program Element (Number/Name) PE 0603118A / Soldier Lethality Advanced Technology				Project (Number/Name) AY9 / Body Armor & Integrated Headborne Advanced Tech				
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost	
AY9: Body Armor & Integrated Headborne Advanced Tech	-	8.065	5.897	4.577	-	4.577	-	-	-	-	-	-	
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-			
A. Mission Description and Budget Item Justification													
<p>This Project matures and demonstrates body armor weight reductions and improves the performance of personal protection and survivability equipment. It also demonstrates combat helmet ballistic, blast, and small arms protection performance enhancements and the integration and optimization of power, energy, and digital sensor and display headborne technologies.</p> <p>This Project supports Force Protection capability demonstrations for Soldiers and Small Units and demonstrated technologies from this effort transition to various Program Executive Office (PEO) Soldier programs.</p> <p>This Project complements work done in Program Element (PE) 0602143A (Soldier Lethality Technology) / AZ2 (Body Armor & Integrated Headborne Technology).</p> <p>The cited research is consistent with the Under Secretary of Defense for Research and Engineering priority focus areas and the Army modernization strategy.</p> <p>Work in this Project is performed by the Soldier Center (SC).</p>													
B. Accomplishments/Planned Programs (\$ in Millions)									FY 2024	FY 2025	FY 2026		
Title: Body Armor and Integrated Headborne Advanced Technology									8.065	5.897	4.577		
Description: This effort focuses on maturing, integrating and demonstrating personal protective capabilities against ballistic, blast, and directed energy threats as well as the development and demonstration of Soldier worn platform architectures to optimize the integration of personal protective equipment and Soldier lethality enabling technologies. Demonstrates advanced test methods to validate personal protective equipment performance enhancements against current and emerging small arms, fragmentation, and blast threats from anti-personnel munitions. The objective of these technology development efforts is to significantly increase Soldier lethality by enhancing the protective capabilities and reducing sub-system and system-level weight of individual protective equipment to reduce the Soldier burden and increase survivability.													
FY 2025 Plans:													
Will validate power and data interface architecture for combat helmets and integrated headborne accessories utilizing universal interface designs to enable active technology insertion; exploit novel helmet shell forming techniques and emerging ballistic materials to increase helmet ballistic and blunt impact performance; mature cable-free communication headset subsystems with													

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army		Date: June 2025	
Appropriation/Budget Activity 2040 / 3	R-1 Program Element (Number/Name) PE 0603118A / <i>Soldier Lethality Advanced Technology</i>	Project (Number/Name) AY9 / <i>Body Armor & Integrated Headborne Advanced Tech</i>	
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2024	FY 2025
wireless down links; optimize integrated eye protection with enhanced fragmentation performance and active anti-fog capability; demonstrate eye protection with integrated heads up display to enhance daytime situational awareness. FY 2026 Plans: Will begin demonstration of validated power and data interface architecture for combat helmets and integrated headborne accessories utilizing universal interfaces to enable active technology insertion; demonstrate novel helmet shell forming techniques and emerging ballistic materials to increase helmet ballistic and blunt impact performance; and demonstrate integrated communication headset subsystems. FY 2025 to FY 2026 Increase/Decrease Statement: FY26 funding decrease reflects reduced helmet power / data architecture and eye protection technology maturation and demonstration efforts.			
Accomplishments/Planned Programs Subtotals		8.065	5.897
C. Other Program Funding Summary (\$ in Millions)			
N/A			
Remarks			
D. Acquisition Strategy			
N/A			

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army										Date: June 2025		
Appropriation/Budget Activity 2040 / 3					R-1 Program Element (Number/Name) PE 0603118A / Soldier Lethality Advanced Technology				Project (Number/Name) AZ6 / Soldier Signature Management Advanced Technology			
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
AZ6: Soldier Signature Management Advanced Technology	-	3.051	-	-	-	-	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This Project optimizes, matures and demonstrates advances in novel materials, technologies, techniques, and applications increasing the capabilities of camouflage, concealment, and deception against known and emerging sensor threats. These technologies will produce proof of concept systems that decrease the probability of detection and targeting by peer and near-peer adversaries, enabling freedom of movement of semi-independent and dispersed formations, and increase protection of high-valued assets. This Project will demonstrate disruptive Camouflage, Concealment and Deception technologies, supporting expeditionary maneuver in the Multi-Domain Battle Environment to open and retain windows of advantage.

Research in this Project supports key Army needs and leverages/complements the technical research of several Program Elements (PEs) and Projects to include PE 0602143A (Soldier Lethality Technology) / BB4 (Dismounted Soldier Survivability Materials), Project AZ5 (Soldier Protection Technology - Vulnerability), Project AZ9 (Soldier Protection Advanced Tech - Detectability); PE 0601102A (Defense Research Sciences; and PE 0602145A (Next Generation Combat Vehicle Technology) / Project BI2 (Sensor Protection Technology).

The cited research is consistent with the Under Secretary of Defense for Research and Engineering priority focus areas and the Army modernization strategy.

Work in this Project is performed by the Soldier Center (SC).

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2024	FY 2025	FY 2026
Title: Soldier Camouflage, Concealment and Decoys Demonstration	3.051	-	-
Description: This effort demonstrates innovative camouflage, concealment, and deception technologies for the dismounted Soldier to defeat advanced current and emerging adversary Intelligence, Surveillance and Reconnaissance (ISR) threats and to reduce the probability of detection and identification across the electromagnetic spectrum. Matures physics-based models for material and system performance that support probability of detection metrics in the multi-domain operational environment, assisting to close the capability gap between current camouflage, concealment, and deception technologies and defeating enemy sensorial capabilities in future operating environments.			
Accomplishments/Planned Programs Subtotals	3.051	-	-

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army		Date: June 2025
Appropriation/Budget Activity 2040 / 3	R-1 Program Element (Number/Name) PE 0603118A / Soldier Lethality Advanced Technology	Project (Number/Name) AZ6 / Soldier Signature Management Advanced Technology
C. Other Program Funding Summary (\$ in Millions) N/A		
Remarks		
D. Acquisition Strategy N/A		

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army										Date: June 2025		
Appropriation/Budget Activity 2040 / 3					R-1 Program Element (Number/Name) PE 0603118A / Soldier Lethality Advanced Technology				Project (Number/Name) BB3 / Dismounted Soldier Survivability Equip/Tech Integ			
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
BB3: Dismounted Soldier Survivability Equip/Tech Integ	-	3.416	11.551	9.361	-	9.361	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This Project matures and demonstrates Soldier survivability materials and technologies to increase the speed and efficiency of dismounted Soldier movement and maneuver. This Project matures and demonstrates body armor weight reductions and improves the performance of personal protection and survivability equipment. This project optimizes, matures and demonstrates advances in novel materials, technologies, techniques, and applications increasing the capabilities of camouflage, concealment, and deception against known and emerging sensor threats. This Project focuses on reducing Soldier-worn equipment weight, improving Soldier and system integration and reducing the dismounted Soldier's detectability, susceptibility, and vulnerability to operational threats. Operational threats are characterized as combat threats (e.g., flame and thermal, blast and ballistic, multispectral sensors, and laser threats), environmental threats (e.g., cold, heat, wet, vector, water contamination, concealment, etc.), and Soldier system components and system limitations (e.g., size, weight, and bulk). This Project includes the demonstration and validation of integrated technologies, novel subsystems/ systems, and test methods.

This Project complements work done in Program Element (PE) 0602143A (Soldier Lethality Technology) / Project BB4 (Dismounted Soldier Survivability Materials).

The cited research is consistent with the Under Secretary of Defense for Research and Engineering priority focus areas and the Army modernization strategy.

Work in this Project is performed by the Soldier Center (SC).

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2024	FY 2025	FY 2026
Title: Dismounted Soldier Survivability Equipment and Technology Integration	3.416	11.551	9.361
Description: This effort matures and integrates multifunctional protective materials, sub-components, and systems for field demonstrations to significantly increase the survivability of Soldiers through their multi-functional clothing and individual protective equipment. This effort also demonstrates and validates tradeoff analyses in sub-component and system-level designs of ballistic, blast, signature management and integrated protection clothing and equipment technologies.			
FY 2025 Plans: Will demonstrate fully-integrated power/data management in load management system enhancement to provide streamlined form factor and connectivity of electronic devices across the Soldier ensemble platform, reducing snag hazards and increasing Soldier maneuverability and lethality; demonstrate solutions for extreme cold weather protection that complement both existing and future cold weather ensembles to mitigate debilitating injuries and preserve unit strength in extreme cold conditions; perform Soldier			

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army		Date: June 2025		
Appropriation/Budget Activity 2040 / 3	R-1 Program Element (Number/Name) PE 0603118A / Soldier Lethality Advanced Technology	Project (Number/Name) BB3 / Dismounted Soldier Survivability Equip/Tech Integ		
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2024	FY 2025	FY 2026
user assessments on optimized ensemble system prototypes for Multi-Domain Operations (MDO) Ready Soldier of 2035 cross-domain maneuver temperate-to-hot and temperate-to-cold operating environments to improve performance and demonstrate enhanced technology integration; establish protocol to validate desalination devices for efficacy and durability; validate optimized Soldier and Squad level desalination devices in a relevant environment to demonstrate the ability to obtain drinking water from indigenous sources, reducing logistics; mature and demonstrate standalone multi-threat plate designed to provide protection against emerging small arms threats; optimize a standalone small arms protective insert at varying weights to introduce a family of plate technology; demonstrate an integrated rear plate with load carriage technology for improved systems integration; mature and demonstrate a scalable plate against operational relevant threat; optimize overgarment prototypes designed to camouflage a Soldier's signature from battlefield sensors operating in the infrared (thermal) region of the electromagnetic (EM) spectrum and maintaining protection in other EM spectrum regions; demonstrate integration of overgarment into existing cold weather ensemble system and the MDO 2035 cross-domain maneuver temperate-to-cold ensemble matured under the Combat Protective Ensemble program; validate improved concealment against EM sensor threats versus baseline Soldier signature of optimized MDO 2035 cross-domain maneuver temperate-to-hot and temperate-to-cold ensembles to demonstrate improvement and identify further optimization opportunities.				
FY 2026 Plans: Will mature and demonstrate a power/data management hub design that is low profile and provides flexibility for connection with a variety of peripheral electronic devices within the load management system; demonstrate a modular load management system that is tailorable in extreme cold environments to mission needs in terms of protection from environment or threat while maximizing comfort and maneuverability; improve Soldier performance on cold/extreme cold environmental to protect extremities; prevent cold weather injury while maintaining combat effectiveness; mature and demonstrate water quality sensor technologies in relevant environments to indicate end-of-life for filtration devices and identify potential threats for removal in indigenous waters, relevant to contested logistic operations; optimize a lightweight small arms protective insert plate technologies that provides protection at muzzle against the most prevalent threats and protection at relevant standoff distances for higher level threats; demonstrate mission-tailorable blast and fragmentation protection technologies from ground and aerial based anti-personnel munitions; mature and demonstrate prototypes to mitigate Soldier's signature from ground surveillance radar threats; demonstrate integration of new components within the temperate-to-cold and temperate-to-hot ensembles through Soldier user assessments.				
FY 2025 to FY 2026 Increase/Decrease Statement: Funding decrease reflects funding realignment to Program Element (PE) 0603118A / Project BE5 (Personnel & Airdrop Safety Advanced Technology) and PE 0603464A / Project CZ8 (PrSM Modular Payload Advanced Development) to continue Airborne Personnel Safety Technology Development and Sensor Fuzed Weapon Development efforts.				
Accomplishments/Planned Programs Subtotals		3.416	11.551	9.361

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army		Date: June 2025
Appropriation/Budget Activity 2040 / 3	R-1 Program Element (Number/Name) PE 0603118A / Soldier Lethality Advanced Technology	Project (Number/Name) BB3 / Dismounted Soldier Survivability Equip/Tech Integ
C. Other Program Funding Summary (\$ in Millions) N/A		
Remarks		
D. Acquisition Strategy N/A		

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army										Date: June 2025		
Appropriation/Budget Activity 2040 / 3					R-1 Program Element (Number/Name) PE 0603118A / <i>Soldier Lethality Advanced Technology</i>				Project (Number/Name) BB8 / <i>Soldier Centric Advanced Technology</i>			
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
BB8: <i>Soldier Centric Advanced Technology</i>	-	1.833	-	-	-	-	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This Project matures and demonstrates an optimized training systems to enable effective training and provide increased levels of Soldier proficiency and readiness. This Project matures and demonstrates Soldier centric technologies for the Soldier/Squad virtual environment to support the Army's Synthetic Training Environment (STE). The STE is the next generation holistic collective training capability that will train units where they will fight, with whom they will fight with, and in complex operational environments to include dense urban and sub-terrain; within the entire range of combined arms maneuver tasks in support of Multi-Domain Operations. The Soldier/ Squad virtual environment combines and integrates several individual Soldier and Squad training capabilities, STE Squad Capability (SSC), Weapon Skill Development (WSD), Joint Fires Training (JFT), and Use of Force (UoF), into a single capability that can be conducted simultaneously or individually and enable physical movement/ exertion related to the execution of Soldier/Marine individual and Squad collective training tasks. The STE will provide the realistic repetitions necessary to fight 25 bloodless battles before the first battle.

The cited research is consistent with the Under Secretary of Defense for Research and Engineering priority focus areas and the Army modernization strategy.

Work in this Project is performed by the Soldier Center (SC).

B. Accomplishments/Planned Programs (\$ in Millions)	FY 2024	FY 2025	FY 2026
Title: STE Soldier/Squad Virtual Trainer	1.833	-	-
Description: This effort matures and demonstrates a common battle drill squad-level mixed reality based system that allows for the rapid conduct and repetition of squad-level training. The training system will make it possible to conduct diverse, repeatable and effective training without extensive training infrastructure. This effort matures and demonstrates novel and realistic training environments that provide increased levels of proficiency and readiness through immersive training scenarios conducted at the point of need.			
Accomplishments/Planned Programs Subtotals	1.833	-	-

C. Other Program Funding Summary (\$ in Millions)

N/A

Remarks

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army		Date: June 2025
Appropriation/Budget Activity 2040 / 3	R-1 Program Element (Number/Name) PE 0603118A / Soldier Lethality Advanced Technology	Project (Number/Name) BB8 / Soldier Centric Advanced Technology
D. Acquisition Strategy N/A		

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army										Date: June 2025		
Appropriation/Budget Activity 2040 / 3					R-1 Program Element (Number/Name) PE 0603118A / Soldier Lethality Advanced Technology				Project (Number/Name) BC1 / Human Performance AdvTech for Mobility & Lethality			
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
BC1: Human Performance AdvTech for Mobility & Lethality	-	6.866	7.230	10.848	-	10.848	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		
A. Mission Description and Budget Item Justification												
<p>This Project matures technologies, methodologies, and human performance models to demonstrate increased mobility and lethality of the individual and small unit to achieve overmatch and offset vulnerabilities of maneuvering infantry. It validates and integrates human performance assessment methods and algorithms into training/education, test and evaluation methodologies, and materiel solutions to optimize the Soldier as a weapons system and the small unit as an integration combat platform. These methods and algorithms have potential to enable the development of doctrine, organization, training, materiel, leadership and education, personnel and facilities (DOTMLPF) improvements and efficiencies. This Project also uses Soldier assessments to iteratively improve the performance and integration of technologies to augment Soldier function (e.g. shoot, move, perceive, decide, and communicate) during distributed operations utilizing cross-domain capabilities.</p> <p>This Project also complements and is fully coordinated with work performed across Army, Navy, and Air Force under the Human Systems Community of Interest: Systems Interfaces & Cognitive Processes and Protection, Sustainment, and Warfighter Performance.</p> <p>This Project supports key Army needs and complements the technical research of Program Element (PE) 0602143A (Soldier Lethality Technology)/Project BC2 (Next Gen Mobility & Lethality Tech for Warfighters). This research is in partnership with Forces Command (FORSCOM) operational units and the appropriate Training and Doctrine Command (TRADOC) organizations as well as established transition partners, including Program Executive Office-Soldier (PEO-S).</p> <p>The cited research is consistent with the Under Secretary of Defense for Research and Engineering priority focus areas, the Close Combat Lethality Task Force, and the Army modernization strategy.</p> <p>Work in this Project is performed by the Soldier Center (SC).</p>												
B. Accomplishments/Planned Programs (\$ in Millions)									FY 2024	FY 2025	FY 2026	
Title: Operational Unit Partnership and Soldier Touch Point									6.866	2.800	5.287	
Description: This effort optimizes innovation through Science and Technology touch points with the Operational force, resulting in rapid iteration, concept maturation, integration, validation of laboratory findings, and transition of technologies and methodologies in response to operational unit demand signal. This effort streamlines demonstration, data collection, and technology maturation for near term DOTMLPF solutions, enabling faster delivery of materiel and non-materiel products/knowledge refined with direct Soldier input. This body of work allows validated, empirical, assessment of any equipment capability or training intervention as part of the Soldier architecture to inform future acquisition investments, training, and operational trade space decisions.												

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army			Date: June 2025		
Appropriation/Budget Activity 2040 / 3		R-1 Program Element (Number/Name) PE 0603118A / <i>Soldier Lethality Advanced Technology</i>		Project (Number/Name) BC1 / <i>Human Performance AdvTech for Mobility & Lethality</i>	
B. Accomplishments/Planned Programs (\$ in Millions)			FY 2024	FY 2025	FY 2026
FY 2025 Plans: Will mature performance prediction models by integrating expanded model inputs (e.g., physical performance and cognitive and physical interactions) into simulated and field assessments for refinement and validation; conduct user touch points on updated prediction model to inform usability and integration requirements; and mature framework for incorporating real-time Soldier data (e.g., data from wearables) into performance models.					
FY 2026 Plans: Will mature automated advanced analytics using large language models (LLM) to enable small unit and leader decision making and work with partners to refine uses cases, user interface, and information needs; mature and demonstrate advanced analytics (performance prediction models) into a human-performance ecosystem and work with FORSCOM partners to refine use-cases, user interface, information needs, organization data flows, system and network requirements, etc.					
FY 2025 to FY 2026 Increase/Decrease Statement: Funding increase reflects additional work to mature technologies relevant to a human performance ecosystem (e.g., wearables, human performance data management system, and information portrayal) to drive data to decisions at battalion and above echelons. Funding realigned from within Program Element (PE) 0603118A and from PE 0602143A (Soldier Lethality Technology) / Project BC2 (Next Gen Mobility & Lethality Tech for Warfighters) and to PE 0603464A (Long Range Precision Advanced Technology) / Project CZ8 (PrSM Modular Payload Advanced Development).					
Title: Soldier/Squad Performance Metrics for Lethality Description: This effort validates and matures technologies, methodologies, and human performance models to demonstrate increased Soldier and small unit mobility & lethality to achieve overmatch in maneuverability and tempo to degrade enemy targeting on the transparent battlefield. The effort validates and integrates human performance sensors, models, and design guidance into training/education, test and evaluation, and materiel. The results of this work will allow the Army to develop equipment, systems and training devices that maximize the close combat Soldier and small unit performance in multi-domain operations.			-	4.430	5.561
FY 2025 Plans: Will investigate and demonstrate the ability (through methods and metrics) to quantify the effects of a subset of equipment configurations (e.g., body armor levels) on individual and small unit mobility, lethality, and survivability to inform acquisition decisions (resulting data will inform efforts to model the effects of Soldier equipment on performance); demonstrate the integration of wearable physical augmentation technology to determine effects on human-system performance; and mature strategies for optimizing cognitive performance under stress.					
FY 2026 Plans:					

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army		Date: June 2025		
Appropriation/Budget Activity 2040 / 3	R-1 Program Element (Number/Name) PE 0603118A / <i>Soldier Lethality Advanced Technology</i>	Project (Number/Name) BC1 / <i>Human Performance AdvTech for Mobility & Lethality</i>		
B. Accomplishments/Planned Programs (\$ in Millions) Will continue to validate supplementation interventions to mitigate fatigue and enhance Soldier operational performance; assess the impact of select commercial technologies on cognitive and physical performance; demonstrate methods/metrics that quantify impacts of tech and equipment on aspects of Soldier & Squad combat power and mission performance via lab and/or field STPs; improve 3D digital models for integration into modeling and simulation tools. <i>FY 2025 to FY 2026 Increase/Decrease Statement:</i> Funding increase reflects the development of metrics and methods to quantify the impact of equipment and technologies on mobility, survivability, and lethality.		FY 2024	FY 2025	FY 2026
Accomplishments/Planned Programs Subtotals		6.866	7.230	10.848
C. Other Program Funding Summary (\$ in Millions) N/A Remarks D. Acquisition Strategy N/A				

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army										Date: June 2025		
Appropriation/Budget Activity 2040 / 3					R-1 Program Element (Number/Name) PE 0603118A / <i>Soldier Lethality Advanced Technology</i>				Project (Number/Name) BC8 / <i>Training Advanced Technology (Other than STE)</i>			
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
BC8: <i>Training Advanced Technology (Other than STE)</i>	-	7.411	8.073	22.644	-	22.644	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This Project matures and demonstrates advanced training technologies in support of the Army's need for simulations that accurately replicate and realistically represent the effects of current and future weapons systems during live and synthetic training. Integration of the live and synthetic environments into a single synthetic training environment will modernize the current Live Training Environment and allow fair fight engagements across all training environments and training devices.

This Project complements work done in Program Element (PE) 0602143A (Soldier Lethality Technology) / Project BC7 (Training Technology (Other than STE) and Program Element (PE) 0603118A (Soldier Lethality Advanced Technology) / Project BE9 STE Advanced Technology.

The cited research is consistent with the Under Secretary of Defense for Research and Engineering priority focus areas and the Army modernization strategy.

Work in this Project is performed by the Soldier Center (SC).

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2024	FY 2025	FY 2026
Title: Advanced Processing Technologies for Live Training	4.291	2.450	4.127
Description: This effort will improve technologies that reduce the computational burden, latency, and power consumption (battery weight) associated with training dismounted Soldiers in live training environments that leverage simulated tactical engagements. Such live training use-cases require virtual ballistic flyout calculations, casualty assessment, and visualization of terminal effects (e.g., munition impacts).			
FY 2025 Plans: Will verify and validate integrated sensor architecture and ballistic flyout model performance in one to two high fidelity live range exercises; verify and validate casualty assessment accuracy and latency performance against live weapon performance.			
FY 2026 Plans: Will optimize and validate Spatial Phase Imaging (SPI) sensor that is used to capture and identifying 3D objects in real time for target recognition, range finding and probability hit / kill adjudication during simulated engagements. Will integrate and demonstrate sensor for direct fire engagements in programs of record.			
FY 2025 to FY 2026 Increase/Decrease Statement:			

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army		Date: June 2025		
Appropriation/Budget Activity 2040 / 3	R-1 Program Element (Number/Name) PE 0603118A / Soldier Lethality Advanced Technology	Project (Number/Name) BC8 / Training Advanced Technology (Other than STE)		
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2024	FY 2025	FY 2026
Funding increase reflects maturation of technology from Program Element (PE) 0602143A Soldier Lethality Technology/Project BC7 Training Technology (Other than STE) and continuation of development for eventual transition into programs of record at PEO STRI.				
<p>Title: Synthetic Cyberspace Effects for Training</p> <p>Description: This effort matures, demonstrates, and validates a data exchange model for cyberspace effects and a brokering architecture to propagate those cyberspace effects across Live, Virtual and Constructive models and simulations within distributed training environments for collective training.</p> <p>FY 2025 Plans: Will verify and validate cyberspace data models and integrate into brokering effects architecture; validate performance in Cyber, Electronic Warfare (EW) and Global Positioning System (GPS) denied environments specific to Multi-Domain Operations (MDO) use cases; and analyze performance data and begin integration of mature enhancements of brokering architecture.</p> <p>FY 2026 Plans: Will integrate and optimize cyberspace data models and brokering architecture into Joint Land Component Constructive Training Capability (JLCCTC), Persistent Cyber Training Environment (PCTE) and Intelligence Electronic Warfare Tactical Proficiency Trainer (IEWTPT) programs of record.</p> <p>FY 2025 to FY 2026 Increase/Decrease Statement: Funding decrease reflects planned lifecycle of this effort.</p>		3.120	3.506	3.263
<p>Title: Advanced Simulation Management Technologies</p> <p>Description: Develop dynamic automation capability of advanced simulation architecture to enable automatic configuration of small, medium and large scale Live/Virtual/Constructive exercises.</p> <p>FY 2025 Plans: Will develop hardware acceleration architecture; start implementation/integration of dynamic behavior algorithms for large scale training exercise use cases, integrate configuration and authoring components in relevant planning pre-exercise use cases; and start mature component architecture integration into a single solution for implementation in execution phase of large scale collective simulated exercises.</p> <p>FY 2026 Plans: Will mature hardware acceleration architecture; finish implementation/integration of dynamic behavior algorithms for large-scale training exercise use-cases, mature configuration and authoring components in relevant planning pre-exercise use-cases; and</p>		-	2.117	5.633

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army		Date: June 2025	
Appropriation/Budget Activity 2040 / 3	R-1 Program Element (Number/Name) PE 0603118A / <i>Soldier Lethality Advanced Technology</i>	Project (Number/Name) BC8 / <i>Training Advanced Technology (Other than STE)</i>	
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2024	FY 2025
start validation of component architecture and integration into a single solution for implementation in execution phase of large-scale collective simulated exercises.			
FY 2025 to FY 2026 Increase/Decrease Statement: Funding increase reflects realignment from Program Element (PE) 0603118A (Soldier Lethality Advanced Technology) / Project BE9 (STE Advanced Technology).			
Title: Advanced Multi-Domain Environments for Training Description: This effort matures and demonstrates a new, common Multi-Domain Operations (MDO) competency framework to drive machine-supported training performance data collection, tracking and readiness projections for current and new MDO use-cases. This effort also validates emerging operational/training paradigms, including a detailed focus on modeling non-combat factors of operational environments and validates models necessary to train for Information Advantage. FY 2026 Plans: Will begin initial validation activities of architecture previously designed to leverage mature/reusable Measures of Performance/ Effectiveness (MOPs/MOE); demonstrate Multi-Domain Operations (MDO) profiles and authoring tools/user interfaces aligned to knowledge, skills, abilities and behaviors (KSABs) across identified MDO task structures; demonstrate architecture to simulate first order effects in information warfare domain. FY 2025 to FY 2026 Increase/Decrease Statement: Funding increase reflects advanced technology development to support integration and transition activities into PEO STRI Programs of Record.		-	2.656
Title: Advanced Digital Terrain for Live Training Description: This effort matures and demonstrates technologies to enhance the fidelity and visual effects of digital terrain for live training systems, with an objective metric of reducing overall training time to gain proficiency in the live environment. It addresses live training needs for conducting force-on-force, combined arms exercises to enhance readiness at Army home stations and Combat Training Centers by enhancing vertical terrain resolution, physics-based blast effects on terrain, and data compression technologies. FY 2026 Plans: Will mature and demonstrate physics- based algorithms for munitions effects in live range environment based on initial validation, demonstrate wireless data compression architecture for live/virtual/constructive training environments; demonstrate data models		-	6.180

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army		Date: June 2025	
Appropriation/Budget Activity 2040 / 3	R-1 Program Element (Number/Name) PE 0603118A / <i>Soldier Lethality Advanced Technology</i>	Project (Number/Name) BC8 / <i>Training Advanced Technology (Other than STE)</i>	
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2024	FY 2025
that enable high fidelity engagements in live environment; and demonstrate and optimize layered and scalable terrain architecture for live range environment use cases.			
FY 2025 to FY 2026 Increase/Decrease Statement: Funding increase reflects the demonstration and integration activities previously designed in Program Element (PE) 0602143A Soldier Lethality Technology/Project BC7 Training Technology (Other than STE).			
Title: Advanced Medical Training Technology		-	-
Description: Included in this effort is the demonstration and maturation of new medical training simulations to train medical personnel across all levels of care resulting in improvements in haptic capabilities will with hyper bio-fidelity for all levels of care. It optimizes automated measures of student performance in support of Army medical Individual Critical Task Lists (ICTLs). It will demonstrate more realistic tissue properties supporting part-task trainers and modular patient simulator systems.			0.785
FY 2026 Plans: Will mature and demonstrate physical and software solutions for prolonged care in support of Multi-Domain Operations (MDO) training environment; optimize consolidated physiology engine and updated haptic hardware against Live prolonged care use cases that support Army medical training, such as extended austere environment, gender care differences and patient handoff.			
FY 2025 to FY 2026 Increase/Decrease Statement: Funding increase reflects advanced demonstration, integration and transition to Defense Health Agency.			
Accomplishments/Planned Programs Subtotals		7.411	8.073
C. Other Program Funding Summary (\$ in Millions) N/A			
Remarks			
D. Acquisition Strategy N/A			

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army										Date: June 2025		
Appropriation/Budget Activity 2040 / 3					R-1 Program Element (Number/Name) PE 0603118A / Soldier Lethality Advanced Technology				Project (Number/Name) BC9 / Adv Soldier Sensors/Displays AdvTech for Dismounts			
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
BC9: Adv Soldier Sensors/ Displays AdvTech for Dismounts	-	26.470	24.041	25.684	-	25.684	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This Project matures, optimizes, and demonstrates fully digital sensor systems, architectures, and interfacing capabilities to fuse sensors, and network situational understanding information and targeting capabilities to enable maintained mounted and dismounted visual advantage, increased situational awareness, decreased fratricide, and decreased response times to all threats in all environments.

Research in this Project supports the Army Science and Technology Soldier Lethality, Next Generation Combat Vehicle, and Future Vertical Lift Army Modernization priorities.

This Project complements work done in Program Element (PE) 0602143A (Soldier Lethality Technology) / BD1 (Advanced Soldier Sensors/Displays Tech for Dismounts).

The cited research is consistent with the Under Secretary of Defense for Research and Engineering priority focus areas and the Army modernization strategy.

Work in this Project is performed by the Command, Control, Communication, Computers, Cyber, Intelligence, Surveillance and Reconnaissance (C5ISR) Center.

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2024	FY 2025	FY 2026
Title: Advanced Soldier Sensors/Displays Advanced Technology for Dismounts	26.470	24.041	25.684
Description: This effort will mature and demonstrate low cost Soldier-borne situational understanding systems with greater fidelity for improved maneuver and lethality, as well as integrates automated target cueing to increase probability of recognition/identification and tracking of threats in all environments.			
FY 2025 Plans: Demonstrate next generation heads up display and algorithms with improved performance under more robust tactical operations; demonstrate advanced threat cueing modules for detection of concealed threats and reduced time to acquire; optimize display and control of small aerial platform within heads-up display system for improved situational awareness during unmanned teaming; optimize sensor configurations for small aerial platforms with embedded aided target recognition and autonomy; demonstrate final design concept and performance for optimized dismounted hostile fire detection as validation of User expectations; validate			

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army		Date: June 2025		
Appropriation/Budget Activity 2040 / 3	R-1 Program Element (Number/Name) PE 0603118A / <i>Soldier Lethality Advanced Technology</i>	Project (Number/Name) BC9 / <i>Adv Soldier Sensors/Displays AdvTech for Dismounts</i>		
B. Accomplishments/Planned Programs (\$ in Millions) improved head and weapon orientation sensing for covert target engagement; and validate tracking accuracy of mobile targets on the move at tactical ranges to proliferate accurate situational awareness real-time at all echelons. FY 2026 Plans: Will mature methodologies and techniques to enable robust head tracking estimation when displaying augmented reality; demonstrate methodologies and techniques through Soldier feedback; optimize processing techniques to reduce overall power requirements for heads up displays; mature and demonstrate advanced threat cueing modules for display on devices that are not co-located for improved distribution of situational awareness and target handoff; mature and demonstrate a modular payload for dismounted hostile fire detection on robotic platforms; optimize covert target pointing to reduce Soldier signature during target handoff scenarios; optimize modular payloads for unmanned aerial assets to track and geolocate mobile targets while on the move, at tactical ranges; optimize aided sensing methodology in a laboratory environment to improve situational awareness for the dismounted Soldier. FY 2025 to FY 2026 Increase/Decrease Statement: Funding increase due to improve the performance of autonomous threat cuing for dismounted sensors at the tactical edge.		FY 2024	FY 2025	FY 2026
Accomplishments/Planned Programs Subtotals		26.470	24.041	25.684
C. Other Program Funding Summary (\$ in Millions) N/A Remarks D. Acquisition Strategy N/A				

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army										Date: June 2025		
Appropriation/Budget Activity 2040 / 3					R-1 Program Element (Number/Name) PE 0603118A / Soldier Lethality Advanced Technology				Project (Number/Name) BD7 / Soldier Sys Interfaces/Integration-Sensor AdvTech			
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
BD7: Soldier Sys Interfaces/Integration-Sensor AdvTech	-	7.011	6.338	4.662	-	4.662	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This Project will integrate and mature technologies for sensing, processing, displaying information, interfacing with users, and cognitive improvement to enhance Soldier & Small Unit situational awareness & understanding. This Project will integrate and demonstrate battlefield, body-worn sensors, and data fusion algorithms to provide the dismounted Small Unit leader with clear, actionable information for making well informed, rapid, tactical decisions over long duration in extreme conditions. This Project will also mature and integrate advanced dismounted Soldier robotic and autonomous systems technologies to demonstrate autonomous navigation, manned-unmanned teaming, and networked reconnaissance to improve Soldier lethality, situational awareness, and survivability during tactical operations in extreme conditions.

Research in this Project complements several Program Elements (PEs) and Projects to include PE 0602143A (Soldier Lethality Technology) / BD6 (Soldier Sys Interfaces/Integration - Sensor Tech), PE 0603118A (Soldier Lethality Advanced Technology) / Project BC1 (Human Performance AdvTech for Mobility & Lethality) and Project BC9 (Adv Soldier Sensors/Displays AdvTech for Dismounts).

The cited research is consistent with the Under Secretary of Defense for Research and Engineering priority focus areas and the Army modernization strategy.

Research in this Project is performed by the Soldier Center (SC).

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2024	FY 2025	FY 2026
Title: Soldier System Interfaces & Integration (Sensor Advanced Technology)	7.011	-	-
Description: This effort will integrate battlefield and body-worn sensors and mature data-fusion algorithms to provide the dismounted Small Unit leader with clear, actionable information to make well informed, rapid, tactical decisions. This effort will mature and integrate advanced dismounted Soldier robotic and autonomous systems technologies to demonstrate autonomous navigation, manned-unmanned teaming, and networked reconnaissance to improve Soldier lethality, situational awareness, and survivability during tactical operations.			
Title: Soldier Situational Awareness AdvTech	-	6.338	4.662
Description: This effort will integrate battlefield and body-worn sensors and mature data-fusion algorithms to provide the dismounted Small Unit leader with clear, actionable information to make well informed, rapid, tactical decisions. This effort will mature and integrate advanced dismounted Soldier robotic and autonomous systems technologies to demonstrate autonomous			

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army		Date: June 2025	
Appropriation/Budget Activity 2040 / 3	R-1 Program Element (Number/Name) PE 0603118A / <i>Soldier Lethality Advanced Technology</i>	Project (Number/Name) BD7 / <i>Soldier Sys Interfaces/Integration-Sensor AdvTech</i>	
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2024	FY 2025
<p>navigation, manned-unmanned teaming, and networked reconnaissance to improve Soldier lethality, situational awareness, and survivability during tactical operations.</p> <p><i>FY 2025 Plans:</i> Integrate and demonstrate Unmanned Systems (UMS) Tools application to control Small UAS from the Nett Warrior platform in support of Next Generation Command & Control (NGC2) at Project Convergence Capstone 5 (PCC5) and the Army's Transformation in Contact (TiC) 1.0 and 2.0 initiatives; demonstrate the Trailblazer dismounted route planning application during a Soldier field evaluation to collect user feedback during operational scenarios and inform changes to the application prior to the final transition to PM SWAR; Transition TRL 6 Sensored Soldier technology deliverables (Trailblazer, Foresight, Unmanned Systems Tool, Jupiter applications) to PM SWAR - Nett Warrior, as outlined in the signed Transition Agreement.</p> <p><i>FY 2026 Plans:</i> Will integrate Soldier mission-command systems, threat-detection sensors, unmanned systems, data fusion, intelligent systems, and tactical networks to enhance the small unit's decision dominance, lethality, and survivability during combat operations; mature and demonstrate collaborative autonomy and multi-agent teaming technologies for advanced control and planning of Army unmanned systems during dismounted operations to improve Soldier lethality and situational awareness.</p> <p><i>FY 2025 to FY 2026 Increase/Decrease Statement:</i> Funding decrease reflects reduction in Soldier touchpoints and field demonstrations to assess performance and gain user feedback on integrated Soldier system technologies during missions in operationally-relevant environments.</p>			
Accomplishments/Planned Programs Subtotals		7.011	6.338
C. Other Program Funding Summary (\$ in Millions)			
N/A			
Remarks			
D. Acquisition Strategy			
N/A			

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army										Date: June 2025		
Appropriation/Budget Activity 2040 / 3					R-1 Program Element (Number/Name) PE 0603118A / Soldier Lethality Advanced Technology				Project (Number/Name) BD9 / Soldier & Sm Unit Tactical Energy AdvTech			
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
BD9: Soldier & Sm Unit Tactical Energy AdvTech	-	9.082	-	-	-	-	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		
A. Mission Description and Budget Item Justification												
This Project will demonstrate advanced Power and Energy (P&E) technologies for the dismounted Soldier to lighten equipment load, reduce resupply need, and enhance mobility. This Project will conduct Soldier and Small Unit power and energy technology maturation, integration with clothing and individual equipment, technical analysis, and operational assessment.												
Work in this Project complements several Program Elements (PEs) to include PE 0603118A (Soldier Lethality Advanced Technology) / Project BD7 (Soldier Sys Interfaces/ Integration Adv Tech), Project BD8 (Soldier & Small Unit Tactical Energy Tech), and PE 0603118A (Soldier Lethality Advanced Technology) / Project BC9 (Adv Soldier Sensors/Displays Adv Tech for Dismounts).												
The cited research is consistent with the Under Secretary of Defense for Research and Engineering priority focus areas and the Army modernization strategy.												
Research in this Project is performed by the Soldier Center and the Command, Control, Computers, Communications, Cyber, Intelligence, Surveillance and Reconnaissance (C5ISR) Center.												
B. Accomplishments/Planned Programs (\$ in Millions)										FY 2024	FY 2025	FY 2026
Title: Dismounted Soldier Power and Energy										4.160	-	-
Description: This effort matures, integrates, and demonstrates advanced Soldier P&E technologies that are used to power the dismounted Soldier and small unit's command and control, communications, computers, and sensor devices during tactical operations. This work will result in the Army being able to provide the power and energy the future Soldier requires to operate effectively, while doing so at a reduced physical burden.												
Title: Supply Resiliency for Soldier Power										4.922	-	-
Description: This effort addresses battery supply chain security issues by specifically addressing small battery standardization maturity for DoD applications to be more lethal in dismounted operations.												
Accomplishments/Planned Programs Subtotals										9.082	-	-

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army		Date: June 2025
Appropriation/Budget Activity 2040 / 3	R-1 Program Element (Number/Name) PE 0603118A / Soldier Lethality Advanced Technology	Project (Number/Name) BD9 / Soldier & Sm Unit Tactical Energy AdvTech
C. Other Program Funding Summary (\$ in Millions) N/A		
Remarks		
D. Acquisition Strategy N/A		

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army										Date: June 2025		
Appropriation/Budget Activity 2040 / 3					R-1 Program Element (Number/Name) PE 0603118A / Soldier Lethality Advanced Technology				Project (Number/Name) BE2 / Joint Service Combat Feeding Advanced Technology			
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
BE2: Joint Service Combat Feeding Advanced Technology	-	2.632	2.678	2.749	-	2.749	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This Project matures and demonstrates combat ration and field feeding technologies to optimize Warfighter performance, decrease the risk of exposure to chemical and biological contaminants in foods, and reduce the logistics burden to enable semi-independent operations. The Army serves as the Executive Agent for this Department of Defense (DoD) program, with oversight and coordination provided by the DoD Combat Feeding Research and Engineering Board.

This Project matures and demonstrates research done in Program Element (PE) 0602143A (Soldier Lethality Technology) / Project BE3 (Joint Service Combat Feeding Technology).

The cited research is consistent with the Under Secretary of Defense for Research and Engineering priority focus areas and the Army modernization strategy.

Research work in this Project is performed by the Soldier Center (SC).

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2024	FY 2025	FY 2026
Title: Joint Service Combat Feeding Advanced Technology Demonstration	2.632	2.678	2.749
Description: This effort matures and demonstrates combat ration and field feeding technologies to optimize Warfighter performance, decrease risk of exposure to chemical and biological contaminants in foods, and reduce the logistics burden to enable semi-independent operations.			
FY 2025 Plans: Will validate and demonstrate ration component formulations containing alternative protein sources against performance parameters for operational rations; validate the effects of consuming polyphenol-containing food products on warfighter performance, inflammation, and muscle recovery; demonstrate reduced volume and weight Close Combat Assault Ration (CCAR) components to support warfighter health and performance, supporting mission goals of 7 days without resupply; and perform validations of reduced packaging technologies against performance parameters or operational ration platforms.			
FY 2026 Plans: Will demonstrate and validate technologies for rapid biological decontamination of water, to augment potable water supplies for individual Warfighters, in support of expeditionary missions with seven-day water needs without resupply; demonstrate and mature technologies that will reduce battlefield waste, while minimizing logistical tail; validate Technologies demonstrated to			

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army		Date: June 2025		
Appropriation/Budget Activity 2040 / 3	R-1 Program Element (Number/Name) PE 0603118A / Soldier Lethality Advanced Technology	Project (Number/Name) BE2 / Joint Service Combat Feeding Advanced Technology		
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2024	FY 2025	FY 2026
determine sustainable solutions, while also reducing disposal costs; Demonstrate technical approaches for beverage delivery, reducing ration waste while increasing warfighter hydration.				
FY 2025 to FY 2026 Increase/Decrease Statement: Funding increase reflects planned lifecycle of this effort due to economic assumption.				
Accomplishments/Planned Programs Subtotals		2.632	2.678	2.749
C. Other Program Funding Summary (\$ in Millions) N/A				
Remarks				
D. Acquisition Strategy N/A				

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army										Date: June 2025		
Appropriation/Budget Activity 2040 / 3					R-1 Program Element (Number/Name) PE 0603118A / <i>Soldier Lethality Advanced Technology</i>				Project (Number/Name) BE5 / <i>Personnel & Airdrop Safety Advanced Technology</i>			
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
BE5: <i>Personnel & Airdrop Safety Advanced Technology</i>	-	6.453	6.718	9.813	-	9.813	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This Project matures and demonstrates equipment and innovative techniques for precision aerial delivery of cargo and personnel. Technologies support Army Modernization Priority, Soldier Lethality. Aerial delivery is a key capability for rapid force projection and global precision delivery to support the mission readiness profile for Global Response Force (GRF). These efforts are designed to advance state of the art precision delivery technologies such as parachutes; guidance, navigation, and control (GNC) components and subsystems; tracking sensors; software algorithms; and safety rigging that integrates with currently equipped aircraft, unmanned aerial systems (UAS), and advanced rotary wing aircraft. These efforts provide the Warfighter with highly accurate, timely cargo/payload delivery and resupply in all terrain and weather conditions. Precision delivery/resupply reduces vulnerability of ground Soldiers, aircraft, and aircrew. Precision aerial delivery supports remote warfare with activities such as placement of battlefield sensors and reduction of Soldier load.

Research in this Project supports key Army needs and complements the technical research in Program Element (PE) 0602143A (Soldier Lethality Technology) / Project BR9 (Personnel & Airdrop Safety Technology).

This Project also complements research done in the Science & Technology Precision, Navigation and Timing Modernization priority.

The cited research is consistent with the Under Secretary of Defense for Research and Engineering priority focus areas and the Army modernization strategy.

Research work in this Project is performed by the Soldier Center (SC).

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2024	FY 2025	FY 2026
Title: Personnel & Airdrop Safety Advanced Technology	6.453	6.718	9.813
Description: This effort matures and demonstrates parachute materials and designs, precision guidance, navigation software and hardware, tracking sensors, and safety devices to increase the accuracy of delivering cargo to remote locations and/or complex terrains in global positioning system (GPS) denied environments. This effort also provides technologies that increase safety during personnel insertions into theaters of operation. This effort supports capability demonstrations for mitigating the Army's challenge of overburdened Soldiers through the use of tactical aerial resupply technologies, as well as supporting Anti-Access/Area Denial (A2/ AD) and manned-unmanned teaming (MUM-T) operational concepts by demonstrating airdrop from non-traditional platforms.			
FY 2025 Plans:			

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army		Date: June 2025		
Appropriation/Budget Activity 2040 / 3	R-1 Program Element (Number/Name) PE 0603118A / <i>Soldier Lethality Advanced Technology</i>	Project (Number/Name) BE5 / <i>Personnel & Airdrop Safety Advanced Technology</i>		
B. Accomplishments/Planned Programs (\$ in Millions) Will demonstrate full-scale technology for autonomous flight of delivery systems to increase offset distance, weight capacity, and autonomy of resupply operations; demonstrate integration of resupply mission planning solutions with selected resupply delivery systems; and develop assistive technologies to improve individual jumper performance and unit/infiltration team mission effectiveness. FY 2026 Plans: Will conduct full scale end-to-end assessments, in support of technology demonstration for autonomously guided battlefield resupply from >10,000 ft altitude, with payloads distance offsets exceeding 200 km; mature main canopy technical approaches for use within static line paratrooper operations; conduct demonstration of autonomous battlefield resupply technology through consumption initiated requests. FY 2025 to FY 2026 Increase/Decrease Statement: Funding increase from Program Element (PE) 0603118A (Soldier Lethality Advanced Technology) / Project BB3 (Dismounted Soldier Survivability Equip/Tech Integ) to continue Airborne Personnel Safety Technology Effort to continue Airborne Personnel Safety Technology Development effort.		FY 2024	FY 2025	FY 2026
Accomplishments/Planned Programs Subtotals		6.453	6.718	9.813
C. Other Program Funding Summary (\$ in Millions) N/A Remarks D. Acquisition Strategy N/A				

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army										Date: June 2025		
Appropriation/Budget Activity 2040 / 3					R-1 Program Element (Number/Name) PE 0603118A / Soldier Lethality Advanced Technology				Project (Number/Name) BE9 / STE Advanced Technology			
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
BE9: STE Advanced Technology	-	8.125	4.976	0.814	-	0.814	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		
A. Mission Description and Budget Item Justification												
<p>This Project matures and demonstrates technologies supporting the Army's Synthetic Training Environment (STE). The STE is the next generation holistic collective training capability that will train units where they will fight, with whom they will fight with, and in complex operational environments to include dense urban and sub-terrain; within the entire range of combined arms maneuver tasks in support of Multi- Domain Operations. STE Information Systems (STE-IS) delivers the Common Synthetic Environment consisting of Global Terrain/One World Terrain (OWT), Training Simulation Software (TSS), and Training Management Tools (TMT). The STE will be available where training occurs (home station, combat training centers, armories, institutions, shipboard, deployed) and will include Air and Ground Reconfigurable Virtual Collective Trainers (RVCTs), a Soldier/Squad Virtual Training (S/SVT), and a live training capability. The STE will be cloud-enabled, compatible with the Army Enterprise Network, and service-based through the Common Operating Environment, including Live and Constructive. The STE will provide the realistic repetitions necessary to fight 25 bloodless battles before the first battle.</p> <p>The cited research is consistent with the Under Secretary of Defense for Research and Engineering priority focus areas, the Army modernization strategy, and supports the STE Cross Functional Team efforts.</p> <p>Work in this Project is performed by the Soldier Center (SC).</p>												
B. Accomplishments/Planned Programs (\$ in Millions)												
									FY 2024	FY 2025	FY 2026	
Title: STE Training Management Tool									1.661	1.698	-	
Description: This effort matures and demonstrates STE-relevant tools and technologies that automatically adapt training to the learner's skill level, conduct intelligent after action reviews, automate team training assessments, and enable the visualization of and interaction with a Mixed Reality Common Operating Picture of the battlespace.												
FY 2025 Plans:												
Will mature competency tracking and visualization technologies for small-unit after-action review and for Multi-Domain Operations (MDO) mission planning and mission command at higher echelons for live, virtual and constructive engagements.												
FY 2025 to FY 2026 Increase/Decrease Statement:												
Funding decrease reflects an administrative restructure to Program Element 0603118A (Soldier Lethality Advanced technology) / Project BC8 (Training Advanced Technology (Other than STE).												
Title: STE One World Terrain									6.464	3.278	0.814	

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army		Date: June 2025	
Appropriation/Budget Activity 2040 / 3	R-1 Program Element (Number/Name) PE 0603118A / <i>Soldier Lethality Advanced Technology</i>	Project (Number/Name) BE9 / <i>STE Advanced Technology</i>	
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2024	FY 2025
<p>Description: This effort matures and demonstrates tools and methods that improve the speed, fidelity and delivery of synthetic terrain and environmental data needed to support mission rehearsal and training in a representation of the globe, fully accessible through the Army network and usable by all simulation trainers. This effort also matures and develops complex representations (including megacities and subterranean) of the operational environment and the Multi-Domain battlefield in synthetic training environments.</p> <p>FY 2025 Plans: Will validate and demonstrate mature terrain pipeline processes, tools and software that enables delivery of 3D synthetic content to support high fidelity live training engagements across 70% of small-unit live range use cases.</p> <p>FY 2026 Plans: Will continue terrain pipeline maturation, specifically shifting to support new Program of Record requirements for OWT-Operational; demonstrate Operational level fidelity for terrain pipeline on specific Operational Use Cases.</p> <p>FY 2025 to FY 2026 Increase/Decrease Statement: Funding decrease reflects an administrative restructure to Program Element 0603118A (Soldier Lethality Advanced technology) / Project BC8 (Training Advanced Technology (Other than STE)).</p>			
Accomplishments/Planned Programs Subtotals		8.125	4.976
C. Other Program Funding Summary (\$ in Millions)			
N/A			
Remarks			
D. Acquisition Strategy			
N/A			

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army										Date: June 2025		
Appropriation/Budget Activity 2040 / 3					R-1 Program Element (Number/Name) PE 0603118A / <i>Soldier Lethality Advanced Technology</i>				Project (Number/Name) BS8 / <i>Soldier Lethality Advanced Technology</i>			
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
BS8: <i>Soldier Lethality Advanced Technology</i>	-	26.500	12.000	-	-	-	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note

Congressional Interest Item funding provided for Soldier Lethality Advanced Technology.

A. Mission Description and Budget Item Justification

Congressional Interest Item funding provided for Soldier Lethality Advanced Technology.

The cited work is consistent with the Under Secretary of Defense for Research and Engineering priority focus areas and the Army modernization strategy.

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2024	FY 2025
<i>Congressional Add:</i> advanced female body armor	7.000	-
<i>FY 2024 Accomplishments:</i> Congressional Interest Item funding provided for advanced female body armor		
<i>Congressional Add:</i> Inspection scanners with computing machine learning	2.000	-
<i>FY 2024 Accomplishments:</i> Congressional Interest Item funding provided for Inspection scanners with computing machine learning		
<i>Congressional Add:</i> Military footwear research	10.000	5.000
<i>FY 2024 Accomplishments:</i> Congressional Interest Item funding provided for Military footwear research		
<i>FY 2025 Plans:</i> Congressional Interest Item funding provided for Military footwear research		
<i>Congressional Add:</i> personal air mobility capability	2.500	-
<i>FY 2024 Accomplishments:</i> Congressional Interest Item funding provided for personal air mobility capability		
<i>Congressional Add:</i> squad operations advanced resupply	5.000	-
<i>FY 2024 Accomplishments:</i> Congressional Interest Item funding provided for squad operations advanced resupply		
<i>Congressional Add:</i> Enhanced head protection system	-	2.000

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army		Date: June 2025										
Appropriation/Budget Activity 2040 / 3	R-1 Program Element (Number/Name) PE 0603118A / Soldier Lethality Advanced Technology	Project (Number/Name) BS8 / Soldier Lethality Advanced Technology										
B. Accomplishments/Planned Programs (\$ in Millions)		<table border="1"><thead><tr><th>FY 2024</th><th>FY 2025</th></tr></thead><tbody><tr><td colspan="2">FY 2025 Plans: Congressional Interest Item funding provided for Enhanced head protection system</td></tr><tr><td>-</td><td>5.000</td></tr><tr><td colspan="2">FY 2025 Plans: Congressional Interest Item funding provided for Foundational models for generative AI</td></tr><tr><td>Congressional Adds Subtotals</td><td>26.500 12.000</td></tr></tbody></table>	FY 2024	FY 2025	FY 2025 Plans: Congressional Interest Item funding provided for Enhanced head protection system		-	5.000	FY 2025 Plans: Congressional Interest Item funding provided for Foundational models for generative AI		Congressional Adds Subtotals	26.500 12.000
FY 2024	FY 2025											
FY 2025 Plans: Congressional Interest Item funding provided for Enhanced head protection system												
-	5.000											
FY 2025 Plans: Congressional Interest Item funding provided for Foundational models for generative AI												
Congressional Adds Subtotals	26.500 12.000											
C. Other Program Funding Summary (\$ in Millions) N/A												
Remarks												
D. Acquisition Strategy N/A												

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Army										Date: June 2025		
Appropriation/Budget Activity 2040: Research, Development, Test & Evaluation, Army / BA 3: Advanced Technology Development (ATD)					R-1 Program Element (Number/Name) PE 0603119A / Ground Advanced Technology							
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
Total Program Element	-	276.299	87.775	30.507	-	30.507	-	-	-	-	-	-
BK8: Robotics for Engineer Operations Adv Tech	-	3.789	4.257	6.001	-	6.001	-	-	-	-	-	-
BK9: Ground System Fluids and Fuels Adv Tech	-	6.840	-	-	-	-	-	-	-	-	-	-
BL3: Explosives Forensics Advanced Technology	-	2.174	2.285	2.049	-	2.049	-	-	-	-	-	-
BL6: Expedient Passive Protection Advanced Technology	-	5.908	5.866	4.152	-	4.152	-	-	-	-	-	-
BL8: Power Projection in A2AD Environments Adv Tech	-	3.250	4.132	2.658	-	2.658	-	-	-	-	-	-
BM1: Protection from Advanced Weapon Effects Adv Tech	-	4.866	5.142	5.298	-	5.298	-	-	-	-	-	-
BO3: MILITARY ENGINEERING TECHNOLOGY DEMONSTRATION (CA)	-	235.500	47.500	-	-	-	-	-	-	-	-	-
CJ9: Ground Enabling University Adv Development	-	4.060	6.048	-	-	-	-	-	-	-	-	-
CV5: Engineer Enablers Maneuver, LOG, & Sustainment Adv	-	3.192	4.818	2.643	-	2.643	-	-	-	-	-	-
DA2: SAFR Alternatives for Readiness Advanced Tech	-	3.509	3.979	3.298	-	3.298	-	-	-	-	-	-
DG2: Advanced Development of Obscurants	-	3.211	2.832	2.655	-	2.655	-	-	-	-	-	-
DI8: Environmental Security Resilience Adv Tech	-	-	0.315	1.753	-	1.753	-	-	-	-	-	-
DI9: Comprehensive Adapt Operational Energy Adv Tech	-	-	0.601	-	-	-	-	-	-	-	-	-

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Army		Date: June 2025
Appropriation/Budget Activity 2040: Research, Development, Test & Evaluation, Army / BA 3: Advanced Technology Development (ATD)		R-1 Program Element (Number/Name) PE 0603119A / Ground Advanced Technology
A. Mission Description and Budget Item Justification <p>This Program Element (PE) matures and demonstrates ground movement and maneuver technologies that support and enable the Army's modernization priority for the Next Generation of Combat Vehicles. This PE also matures, integrates and demonstrates advanced technologies that are necessary and foundational for legacy and future ground platforms and ground maneuver. These technology areas include: robotic and autonomous Army Combat Engineer equipment, liquid logistics (i.e., fuels, lubricants, and oils) and related monitoring and distribution, forensic analysis of explosives and other chemical materials, rapidly deployable passive protection technologies, entry and maneuver assessment technologies and structural hardening technologies to protect personnel and critical assets from advanced weapon effects.</p> <p>Project BK9: Ground System Fluids and Fuels Adv Tech was eliminated in PE 0603119A to reflect Department of Defense priorities and will cease Army capabilities to qualify advanced fuels and coolants for combat vehicles and to inform fuel logistics. Project CJ9: Ground Enabling University Adv Development in PE 0603119A was eliminated to reflect Department of Defense priorities and will cease university partnerships in the development of autonomy.</p> <p>The cited research is consistent with the Under Secretary of Defense for Research and Engineering priority focus areas in support of the National Defense Strategy.</p> <p>Research is performed by the United States (U.S.) Army Futures Command and the U.S. Army Engineer Research and Development Center.</p> <p>Research in this PE complements PE 0602144A (Ground Technology), PE 0602145A (Next Generation Combat Vehicle Technology), and PE 0603462A (Next Generation Combat Vehicle Advanced Technology).</p> <p>The FY 2026 request was reduced by \$0.063 million for Advisory and Assistance Services to promote efficiencies and advance the policies of the Administration in alignment with Executive Order 14222, "Implementing the President's Department of Government Efficiency Cost Efficiency Initiative."</p> <p>The FY 2026 request was reduced by \$0.176 million for civilian personnel to optimize the workforce in compliance with Executive Order 14210, "Implementing the President's Department of Government Efficiency Workforce Optimization Initiative."</p>		

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Army				Date: June 2025	
Appropriation/Budget Activity		R-1 Program Element (Number/Name)			
2040: Research, Development, Test & Evaluation, Army / BA 3: Advanced Technology Development (ATD)		PE 0603119A / Ground Advanced Technology			
B. Program Change Summary (\$ in Millions)	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total
Previous President's Budget	40.597	45.880	47.871	-	47.871
Current President's Budget	276.299	87.775	30.507	-	30.507
Total Adjustments	235.702	41.895	-17.364	-	-17.364
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-5.605			
• Congressional Rescissions	-	-			
• Congressional Adds	235.500	47.500			
• Congressional Directed Transfers	-	-			
• Reprogrammings	1.179	-			
• SBIR/STTR Transfer	-0.977	-			
• Adjustments to Budget Years	-	-	-17.364	-	-17.364
Congressional Add Details (\$ in Millions, and Includes General Reductions)					
Project: BO3: MILITARY ENGINEERING TECHNOLOGY DEMONSTRATION (CA)					
Congressional Add: Army visual and tactical arctic reconnaissance					
Congressional Add: Autonomous combat engineering program					
Congressional Add: Entry control points at installations					
Congressional Add: Graphene applications for military engineering					
Congressional Add: Mass timber applications for military construction projects					
Congressional Add: Reusable polymer technology					
Congressional Add: Assessments and monitoring systems for historic structures					
Congressional Add: synthetic fuel research					
Congressional Add: Accelerator technology for ground maneuver					
Congressional Add: Cold weather military research					
Congressional Add: Impacts of soil structures on hydrology					
Congressional Add: OLED micro displays					
Congressional Add: electrochemical conversion of waste streams for on-site fuel generation					
Congressional Add: high power fast charging for fleet modernization					
Congressional Add: methane capture and conversion					

FY 2024	FY 2025
2.000	-
2.000	-
2.500	-
2.500	-
2.500	-
2.500	-
3.000	-
3.000	-
4.000	-
4.000	-
4.000	-
4.000	-
5.000	-
5.000	-
5.000	-

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Army		Date: June 2025	
Appropriation/Budget Activity 2040: Research, Development, Test & Evaluation, Army / BA 3: Advanced Technology Development (ATD)		R-1 Program Element (Number/Name) PE 0603119A / Ground Advanced Technology	
Congressional Add Details (\$ in Millions, and Includes General Reductions)		FY 2024	FY 2025
Congressional Add: <i>self contained power for towers and sensors</i>		5.000	-
Congressional Add: <i>Alternative cement solutions</i>		5.000	-
Congressional Add: <i>Deep strength pavement</i>		5.000	-
Congressional Add: <i>Extreme temperatures energy resilience research</i>		5.000	-
Congressional Add: <i>Innovative design and manufacturing of advanced composites/multi material protective systems</i>		5.000	2.500
Congressional Add: <i>Rechargeable lithium batteries</i>		5.000	-
Congressional Add: <i>Soft target protection</i>		5.000	-
Congressional Add: <i>hydrogen fuel cell back-up power system development</i>		5.000	-
Congressional Add: <i>mobile micro-reactor program</i>		5.000	-
Congressional Add: <i>reconfigurable underground test and evaluation</i>		5.000	-
Congressional Add: <i>cross laminated timber</i>		5.500	-
Congressional Add: <i>anticipating threats to natural systems</i>		6.000	-
Congressional Add: <i>novel materials for smart infrastructure systems</i>		6.000	-
Congressional Add: <i>Secure management of energy generation and storage</i>		6.000	-
Congressional Add: <i>Materials and manufacturing technology for cold environments</i>		6.000	-
Congressional Add: <i>Weapon terminal effects in extreme temperatures</i>		6.000	-
Congressional Add: <i>virtual environment for cold weather mobility testing</i>		6.000	-
Congressional Add: <i>Rapid entry and sustainment for the arctic</i>		7.000	-
Congressional Add: <i>additive manufacturing with indigenous materials</i>		8.000	-
Congressional Add: <i>developing engineering practices for ecosystem design solutions</i>		8.000	-
Congressional Add: <i>ruggedized deployable solar generator</i>		8.000	-
Congressional Add: <i>Ultra-high strength steel construction material</i>		8.000	-
Congressional Add: <i>Binder jet additive components</i>		10.000	-
Congressional Add: <i>geoengineering material solutions</i>		10.000	-
Congressional Add: <i>microgrid reliability and resiliency</i>		10.000	10.000
Congressional Add: <i>Water reuse consortium</i>		10.000	-

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Army		Date: June 2025	
Appropriation/Budget Activity 2040: <i>Research, Development, Test & Evaluation, Army I BA 3: Advanced Technology Development (ATD)</i>		R-1 Program Element (Number/Name) PE 0603119A / <i>Ground Advanced Technology</i>	
Congressional Add Details (\$ in Millions, and Includes General Reductions)		FY 2024	FY 2025
Congressional Add: <i>Clean modular hydropower</i>		14.000	-
Congressional Add: <i>Cold regions research and engineering laboratory</i>		-	8.000
Congressional Add: <i>Cold weather mobility testing</i>		-	5.500
Congressional Add: <i>expeditionary additive construction</i>		-	2.000
Congressional Add: <i>Expeditionary portable fission generator</i>		-	6.000
Congressional Add: <i>Heavy vehicle simulator upgrades</i>		-	1.000
Congressional Add: <i>ruggedized expeditionary self-contained generator</i>		-	10.000
Congressional Add: <i>Smart and resilient installations</i>		-	2.500
Congressional Add Subtotals for Project: BO3		235.500	47.500
Congressional Add Totals for all Projects		235.500	47.500
Change Summary Explanation Decrease is due to narrowed focus on thermal fluids for vehicle hybridization and planned conclusion of efforts in battlespace maneuver and survivability from emerging threats demonstrations.			

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army										Date: June 2025		
Appropriation/Budget Activity 2040 / 3					R-1 Program Element (Number/Name) PE 0603119A / Ground Advanced Technology				Project (Number/Name) BK8 / Robotics for Engineer Operations Adv Tech			
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
BK8: Robotics for Engineer Operations Adv Tech	-	3.789	4.257	6.001	-	6.001	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This Project matures and demonstrates robotic engineer equipment capabilities that can remotely characterize the environment and operate in the battlespace for autonomous Combat Engineer actions. This Project provides technologies for Combat Engineer mission planning, creating or reducing barriers and obstacles, as well as maintaining, repairing, and constructing expedient infrastructure. These efforts will enhance Combat Engineer missions of mobility, counter mobility, and survivability through semi-autonomous or autonomous operations.

Work in this Project complements Program Element (PE) 0602144A (Ground Technology) / Project BK7 (Robotics for Engineer Operations Technology).

The work cited is consistent with the Under Secretary of Defense for Research and Engineering priority focus areas.

Work in this Project is performed by the United States Army Engineer Research and Development Center Construction Engineering Research Laboratory, Information Technology Laboratory, and Geotechnical and Structures Laboratory

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2024	FY 2025	FY 2026
Title: Semi-Autonomous Engr Ops Demonstration	3.789	4.257	6.001
Description: This effort matures and demonstrates machine tool behaviors to perform semi-autonomous shaping of the terrain through physical interaction with the environment (push, pull, lift, and dig). The effort develops the necessary decision-making, data fusion, localization, and inter-platform communication to allow semi-autonomy on commercial off the shelf (COTS) equipment.			
FY 2025 Plans: Will demonstrate and validate semiautonomous on-site operation of heavy Engineer equipment through Soldier assessment; will demonstrate and validate semiautonomous execution of a simple Engineer task.			
FY 2026 Plans: Will mature and demonstrate multiple heavy Engineer equipment with limited semiautonomous task execution working simultaneously, to include terrain shaping to reduce negative obstacles, and provide Modular Open Systems Architecture (MOSA)-framework for interoperability and adaptable integration of autonomous capabilities on unmanned Engineer equipment.			
FY 2025 to FY 2026 Increase/Decrease Statement:			

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army		Date: June 2025		
Appropriation/Budget Activity 2040 / 3	R-1 Program Element (Number/Name) PE 0603119A / Ground Advanced Technology	Project (Number/Name) BK8 / Robotics for Engineer Operations Adv Tech		
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2024	FY 2025	FY 2026
Funding increase reflects adjustments to planned milestones and Army reduction.				
Accomplishments/Planned Programs Subtotals		3.789	4.257	6.001
C. Other Program Funding Summary (\$ in Millions)				
N/A				
Remarks				
N/A				
D. Acquisition Strategy				
N/A				

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army										Date: June 2025		
Appropriation/Budget Activity 2040 / 3					R-1 Program Element (Number/Name) PE 0603119A / Ground Advanced Technology				Project (Number/Name) BK9 / Ground System Fluids and Fuels Adv Tech			
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
BK9: Ground System Fluids and Fuels Adv Tech	-	6.840	-	-	-	-	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		
A. Mission Description and Budget Item Justification												
<p>This Project matures and demonstrates liquid logistics technologies such as enhanced jet fuels, lubricants, oils, powertrain fluids, coolants, bulk fluid treatment, monitoring, metering, storage, and distribution in support of established Army regulations and requirements. This Project improves products and technologies to optimize fuel efficiency, meet new hardware fluid requirements, modernize fluids, ensure bulk fluid meets quality requirements, and provide bulk fluid asset visibility, to optimize logistics and reduce logistics requirements. This Project executes the demonstration of enhanced jet fuels for ground systems, enhanced performance coolants, fluids for vehicle electrification, and smart bulk fuel metering and monitoring technologies. This Project improves liquid logistics products and technologies that are critical enablers for multi-domain operations requiring semi-independent operations to enable dispersed operations to extend operational reach, prolong endurance and allow freedom of action for the Joint Force.</p> <p>The cited research is consistent with the Under Secretary of Defense for Research and Engineering priority focus areas.</p> <p>Work in this Project is performed by the Ground Vehicle System Center (GVSC)</p>												
B. Accomplishments/Planned Programs (\$ in Millions)									FY 2024	FY 2025	FY 2026	
Title: Ground System Fluids and Fuels									6.840	-	-	
Description: This effort focuses on reducing the logistics footprint, improving fuel efficiency, and ensuring mobility by maturing and demonstrating technologies in areas such petroleum quality monitoring, filtration, storage and distribution, hydraulic fluids; enhanced jet fuels and fuel additives, lubricants, oil, powertrain fluids and coolants.												
Validates candidate engine coolants that extend change intervals, reduce corrosion, and minimize incompatibility issues for military use. Establish performance requirements for new military thermal fluids that enable emerging vehicle electrification technology. Integrate smart fuel metering technology into self-correcting devices that automatically report fuel quantity and conduct fuel filter effectiveness testing to establish fuel particle contamination limits for new fuel monitoring technology.												
Accomplishments/Planned Programs Subtotals									6.840	-	-	
C. Other Program Funding Summary (\$ in Millions)												
N/A												

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army		Date: June 2025
Appropriation/Budget Activity 2040 / 3	R-1 Program Element (Number/Name) PE 0603119A / Ground Advanced Technology	Project (Number/Name) BK9 / Ground System Fluids and Fuels Adv Tech
C. Other Program Funding Summary (\$ in Millions)		
Remarks		
D. Acquisition Strategy		
N/A		

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army										Date: June 2025		
Appropriation/Budget Activity 2040 / 3					R-1 Program Element (Number/Name) PE 0603119A / Ground Advanced Technology				Project (Number/Name) BL3 / Explosives Forensics Advanced Technology			
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
BL3: Explosives Forensics Advanced Technology	-	2.174	2.285	2.049	-	2.049	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This will mature and demonstrate instrumentation and algorithms required to provide improved point, proximity, and stand-off detection of low levels of explosives and solid chemical hazards. This will enable the warfighter to integrate portable chemical and explosive hazard detection equipment. This project will also integrate explosive detection into the family of Chemical, Biological, Radiological, and Nuclear point and stand-off sensors, alternative chemical detection modalities and algorithms, that will improve the probability of detection and attribution of an explosive hazard or home-made explosive manufacturing/assembly location.

Work in this project compliments Program Element (PE) 0602144A (Ground Technology) / Project BL2 (Explosives Forensics Technology)

The cited work is consistent with the Under Secretary of Defense Research and Engineering priority focus.

Work in this Project is performed by the Chemical Biological Center (CBC)

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2024	FY 2025	FY 2026
Title: Detection Mechanisms for Contaminants	2.174	2.285	-
Description: This effort matures and demonstrates improved point and standoff detection of military and homemade explosives and their precursors, and other chemicals and hazardous materials.			
FY 2025 Plans: Will transition the Portable Microscopy Chemical Detection System (PMCDs) for semi-autonomous detection of solid chemical hazards on surfaces. Will optimize and demonstrate the second integrated package for the waveguide enhanced Raman spectroscopy vapor detection system and provide new advanced optical and non-optical methodologies and technology for forensic level detection of chemical hazards.			
FY 2025 to FY 2026 Increase/Decrease Statement: Funding decrease reflects realignment to task Forensic Analysis of Explosives Signatures Advanced Research within this project and funding realigned to Program Element (PE) 0603462A (Next Generation Combat Vehicle Advanced Technology) / Project BF4 (Combat Vehicle Robotics Adv Tech) to support Human-Machine Integrated Formations (H-MIF)			
Title: Forensic Analysis of Explosives Signatures Advanced Research	-	-	2.049

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army		Date: June 2025		
Appropriation/Budget Activity 2040 / 3	R-1 Program Element (Number/Name) PE 0603119A / Ground Advanced Technology	Project (Number/Name) BL3 / Explosives Forensics Advanced Technology		
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2024	FY 2025	FY 2026
<p>Description: This effort matures and demonstrates improved point and standoff detection of military and homemade explosives. chemical threats, and their precursors, and other chemicals and hazardous materials.</p> <p>FY 2026 Plans: Will mature and transition the Waveguide Enhanced Raman Spectroscopy (WERS) System for improved chemical vapor detection in a reduced form factor and demonstrate performance optimization of the Hyperspectral Threat Anomaly Detector for on-the-move sensing proficiency; further mature advanced optical and non-optical surface and ground sensing technologies for improved forensic level detection of chemical hazards.</p> <p>FY 2025 to FY 2026 Increase/Decrease Statement: Funding increase reflects realignment from task Detection Mechanisms for Contaminants within this project</p>				
Accomplishments/Planned Programs Subtotals		2.174	2.285	2.049
C. Other Program Funding Summary (\$ in Millions)				
N/A				
Remarks				
D. Acquisition Strategy				
N/A				

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army										Date: June 2025		
Appropriation/Budget Activity 2040 / 3					R-1 Program Element (Number/Name) PE 0603119A / Ground Advanced Technology				Project (Number/Name) BL6 / Expedient Passive Protection Advanced Technology			
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
BL6: Expedient Passive Protection Advanced Technology	-	5.908	5.866	4.152	-	4.152	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This Project matures and demonstrates rapidly deployable protection solutions to protect the Warfighter and critical assets; methodologies for intuitive decision support; and tactics, techniques, and procedures to increase the survivability of personnel, critical assets, and facilities from a range of threats. Force protection technologies will be matured and demonstrated for applications in complex and contested environments to protect against a range of threats, to include improvised, conventional, and emerging weapons such as ballistic missiles. Develop and demonstrate protective structure design guidance to reduce blast overpressure (BOP) exposure to Warfighters using rapid analysis and characterization of blast environments and novel materials and structural solutions.

Work in this Project complements Program Element (PE) 0602144A (Ground Technology) / Project BL5 (Expedient Passive Protection Technology).

The work cited is consistent with the Under Secretary of Defense for Research and Engineering priority focus areas and the Army Modernization Strategy.

Work in this Project supports the Army Science and Technology Ground Portfolio.

Work in this Project is performed by the United States Army Engineer Research and Development Center Geotechnical and Structures Laboratory.

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2024	FY 2025	FY 2026
Title: Assessments of Solutions for Survivability from Emerging Threats Demonstrations	5.908	5.866	-
Description: This effort matures and demonstrates expedient force protection solutions for emerging threats such as large caliber rocket and missile weapon effects and weaponized unmanned aerial systems. This effort also demonstrates survivability assessment methodologies for intuitive decision support, and informs tactics, techniques, and procedures (TTP's) to increase the survivability of personnel and critical assets against emerging threats. This effort will enhance Warfighter and critical asset survivability from these emerging threats.			
FY 2025 Plans: Will validate and transition survivability assessment methodologies to predict probabilistic survivability of multiple assets for various attack scenarios, predict the ballistic and fragmentation resistance of various materials, and predict accurate airblast loading from realistic weapon configurations. Will demonstrate solutions for physical interrupters and mitigation measures to			

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army		Date: June 2025		
Appropriation/Budget Activity 2040 / 3	R-1 Program Element (Number/Name) PE 0603119A / <i>Ground Advanced Technology</i>	Project (Number/Name) BL6 / <i>Expedient Passive Protection Advanced Technology</i>		
B. Accomplishments/Planned Programs (\$ in Millions) provide passive protection from weaponized unmanned aerial systems. Will demonstrate expeditionary underground bunker post-installed ventilation system and near-miss ballistic missile performance. <i>FY 2025 to FY 2026 Increase/Decrease Statement:</i> Funding decrease reflects planned conclusion of this effort.		FY 2024	FY 2025	FY 2026
<i>Title:</i> Deliberate Expedient Protection for Large-scale Operations Yielding Survivability (DEPLOYS) Demonstrations <i>Description:</i> This effort matures and demonstrates expedient survivability solutions for large-scale combat operations. This effort will develop logistically feasible passive protection solutions tailored for protection of key assets, logistical nodes, sustainment functions, and tactical operation centers to complement active and other passive protection solutions throughout INDOPACOM enhancing overall mission assurance. This effort will also demonstrate holistic survivability assessments and guidance for critical sites, functions, and personnel, accounting for various attack scenarios and the interdependencies of components, assets, systems, and systems of systems. <i>FY 2026 Plans:</i> Will mature and demonstrate multiple expeditionary protection solutions to increase survivability of key assets and critical personnel from weapons effects including a lightweight rapidly deployable personnel bunker and expeditionary overhead cover solutions. Will demonstrate the performance of expeditionary protection solutions to increase survivability of assets and personnel from weapons effects. Will optimize and validate methodologies to rapidly predict the survivability of key assets. <i>FY 2025 to FY 2026 Increase/Decrease Statement:</i> FY 2026 funding increase due to planned initiation of this effort. This effort is a new start in FY 2026.		-	-	4.152
Accomplishments/Planned Programs Subtotals		5.908	5.866	4.152
C. Other Program Funding Summary (\$ in Millions) N/A Remarks N/A D. Acquisition Strategy N/A				

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army										Date: June 2025		
Appropriation/Budget Activity 2040 / 3					R-1 Program Element (Number/Name) PE 0603119A / Ground Advanced Technology				Project (Number/Name) BL8 / Power Projection in A2AD Environments Adv Tech			
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
BL8: Power Projection in A2AD Environments Adv Tech	-	3.250	4.132	2.658	-	2.658	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		
A. Mission Description and Budget Item Justification												
This Project matures and demonstrates remote assessment technologies to determine entry and maneuver corridors, provides site selection tools and decision support technologies for climatic regions in all season conditions including aviation site- selection tools, enhanced automated route reconnaissance technologies, mobility models for extreme temperatures, and road capacity assessment technologies. These technologies will reduce reliance on manned on-site reconnaissance for force projection assessments and provide all-season predictions to ensure air and ground battlespace entry and maneuver. This Project also matures and demonstrates material solutions to repair, rebuild, and construct infrastructure required for movement and maneuver in highly contested, complex operational environments such as Anti-Access/Area Denial.												
Work in this Project complements Program Element (PE) 0602144A (Ground Technology) / Project BL7 (Power Projection in A2AD Environments Technology).												
The work cited is consistent with the Under Secretary of Defense for Research and Engineering priority focus areas.												
Work in this Project is performed by the United States Army Engineer Research and Development Center Geotechnical and Structures Laboratory.												
B. Accomplishments/Planned Programs (\$ in Millions)										FY 2024	FY 2025	FY 2026
Title: Engineering for Battlespace Maneuver Demonstrations										3.250	4.132	-
Description: This effort demonstrates material solutions and techniques for expedient repair to rapidly repair and upgrade damaged infrastructure along mobility corridors and restaging areas to maintain and enhance freedom of maneuver achieving overmatch and tactical advantage in contested complex environments.												
FY 2025 Plans:												
Will demonstrate planning tools for predicting route degradation and for when tasking route repair and upgrades will be required; will demonstrate suite of technologies for performing rapid route remediation to support ground maneuver operations.												
FY 2025 to FY 2026 Increase/Decrease Statement:												
Funding decrease reflects planned conclusion of this effort.												
Title: Force Projection in Multi-Domain Operations Demonstrations										-	-	2.658

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army		Date: June 2025		
Appropriation/Budget Activity 2040 / 3	R-1 Program Element (Number/Name) PE 0603119A / <i>Ground Advanced Technology</i>	Project (Number/Name) BL8 / <i>Power Projection in A2AD Environments Adv Tech</i>		
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2024	FY 2025	FY 2026
<p>Description: This effort demonstrates capabilities for maneuver across air/land/sea domains using Combat Engineer assets to assess, modify, and upgrade transitional regions (such as beaches and coastal swamps) critical to force projection. Demonstrates planning tools for prioritizing assets required for engineers to perform mobility enhancements. Demonstrates material solutions and informs tactics, techniques, and procedures for engineering enhancements that enable overmatch through expanded environments for distributed operations.</p> <p>FY 2026 Plans: Will mature and demonstrate full-scale material for soft sand site stabilization; will validate equipment requirements and techniques for implementing site stability solutions; will provide technical data package for commercial production of site stability solutions.</p> <p>FY 2025 to FY 2026 Increase/Decrease Statement: FY 2026 funding increase due to planned initiation of this effort. This effort is a new start in FY 2026.</p>				
Accomplishments/Planned Programs Subtotals		3.250	4.132	2.658
C. Other Program Funding Summary (\$ in Millions) N/A Remarks N/A D. Acquisition Strategy N/A				

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army										Date: June 2025		
Appropriation/Budget Activity 2040 / 3					R-1 Program Element (Number/Name) PE 0603119A / Ground Advanced Technology				Project (Number/Name) BM1 / Protection from Advanced Weapon Effects Adv Tech			
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
BM1: Protection from Advanced Weapon Effects Adv Tech	-	4.866	5.142	5.298	-	5.298	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This Project matures and demonstrates structural hardening solutions and force protection technologies to increase survivability of facilities and provide critical updates to protective design specifications and guidance. Additionally, this project matures and demonstrates passive protection technologies and provides protective design criteria advancements to mitigate attack from emerging advanced threats.

Work in this Project complements Program Element (PE) 0602144A (Ground Technology) / Project BL9 (Protection from Advanced Weapon Effects Technology).

The work cited is consistent with the Under Secretary of Defense for Research and Engineering priority focus areas.

Work in this Project is performed by the United States Army Engineer Research and Development Center Geotechnical and Structures Laboratory.

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2024	FY 2025	FY 2026
Title: Protection from Advanced Penetrators Demonstration	4.866	5.142	5.298
Description: This effort matures and demonstrates passive protective designs and concepts for hardened structures and critical assets that mitigate the effects of advanced precision threat weapons of peer and near peer adversaries through focused subscale to full-scale demonstrations.			
FY 2025 Plans: Will optimize advanced protective materials and structural members to mitigate penetration and perforation from increased velocity advanced penetrator threats.			
FY 2026 Plans: Will optimize subscale structural hardening concepts against advanced penetrating weapons with increased velocity; validate enhanced reinforced subscale systems for reduced structural thickness with improved performance.			
FY 2025 to FY 2026 Increase/Decrease Statement: Funding increase reflects planned addition of workflows to optimize subscale structural hardening concepts and validate subscale systems for reduced structural thickness.			
Accomplishments/Planned Programs Subtotals	4.866	5.142	5.298

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army		Date: June 2025
Appropriation/Budget Activity 2040 / 3	R-1 Program Element (Number/Name) PE 0603119A / Ground Advanced Technology	Project (Number/Name) BM1 / Protection from Advanced Weapon Effects Adv Tech
C. Other Program Funding Summary (\$ in Millions) N/A		
Remarks N/A		
D. Acquisition Strategy N/A		

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army										Date: June 2025		
Appropriation/Budget Activity 2040 / 3					R-1 Program Element (Number/Name) PE 0603119A / Ground Advanced Technology				Project (Number/Name) BO3 / MILITARY ENGINEERING TECHNOLOGY DEMONSTRATION (CA)			
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
BO3: MILITARY ENGINEERING TECHNOLOGY DEMONSTRATION (CA)	-	235.500	47.500	-	-	-	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Congressional Interest Item funding provided for Military Engineering Technology Demonstration.

The cited work is consistent with the Under Secretary of Defense for Research and Engineering priority focus areas and the Army modernization strategy.

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2024	FY 2025
Congressional Add: Army visual and tactical arctic reconnaissance	2.000	-
FY 2024 Accomplishments: Congressional Interest Item funding provided for Army visual and tactical arctic reconnaissance.		
Congressional Add: Autonomous combat engineering program	2.000	-
FY 2024 Accomplishments: Congressional Interest Item funding provided for Autonomous combat engineering program.		
Congressional Add: Entry control points at installations	2.500	-
FY 2024 Accomplishments: Congressional Interest Item funding provided for Entry control points at installations.		
Congressional Add: Graphene applications for military engineering	2.500	-
FY 2024 Accomplishments: Congressional Interest Item funding provided for Graphene applications for military engineering.		
Congressional Add: Mass timber applications for military construction projects	2.500	-
FY 2024 Accomplishments: Congressional Interest Item funding provided for Mass timber applications for military construction projects.		
Congressional Add: Reusable polymer technology	2.500	-

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army		Date: June 2025
Appropriation/Budget Activity 2040 / 3	R-1 Program Element (Number/Name) PE 0603119A / <i>Ground Advanced Technology</i>	Project (Number/Name) BO3 / <i>MILITARY ENGINEERING TECHNOLOGY DEMONSTRATION (CA)</i>
B. Accomplishments/Planned Programs (\$ in Millions)		
	FY 2024	FY 2025
FY 2024 Accomplishments: Congressional Interest Item funding provided for Reusable polymer technology.		
Congressional Add: Assessments and monitoring systems for historic structures	3.000	-
FY 2024 Accomplishments: Congressional Interest Item funding provided for Assessments and monitoring systems for historic structures.		
Congressional Add: synthetic fuel research	3.000	-
FY 2024 Accomplishments: Congressional Interest Item funding provided for synthetic fuel research.		
Congressional Add: Accelerator technology for ground maneuver	4.000	-
FY 2024 Accomplishments: Congressional Interest Item funding provided for Accelerator technology for ground maneuver.		
Congressional Add: Cold weather military research	4.000	-
FY 2024 Accomplishments: Congressional Interest Item funding provided for Cold weather military research.		
Congressional Add: Impacts of soil structures on hydrology	4.000	-
FY 2024 Accomplishments: Congressional Interest Item funding provided for Impacts of soil structures on hydrology.		
Congressional Add: OLED micro displays	4.000	-
FY 2024 Accomplishments: Congressional Interest Item funding provided for OLED micro displays.		
Congressional Add: electrochemical conversion of waste streams for on-site fuel generation	5.000	-
FY 2024 Accomplishments: Congressional Interest Item funding provided for electrochemical conversion of waste streams for on-site fuel generation.		
Congressional Add: high power fast charging for fleet modernization	5.000	-
FY 2024 Accomplishments: Congressional Interest Item funding provided for high power fast charging for fleet modernization.		
Congressional Add: methane capture and conversion	5.000	-
FY 2024 Accomplishments: Congressional Interest Item funding provided for methane capture and conversion.		
Congressional Add: self contained power for towers and sensors	5.000	-

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army		Date: June 2025
Appropriation/Budget Activity 2040 / 3	R-1 Program Element (Number/Name) PE 0603119A / Ground Advanced Technology	Project (Number/Name) BO3 / MILITARY ENGINEERING TECHNOLOGY DEMONSTRATION (CA)
B. Accomplishments/Planned Programs (\$ in Millions)		
	FY 2024	FY 2025
FY 2024 Accomplishments: Congressional Interest Item funding provided for self contained power for towers and sensors.		
Congressional Add: Alternative cement solutions	5.000	-
FY 2024 Accomplishments: Congressional Interest Item funding provided for Alternative cement solutions.		
Congressional Add: Deep strength pavement	5.000	-
FY 2024 Accomplishments: Congressional Interest Item funding provided for Deep strength pavement.		
Congressional Add: Extreme temperatures energy resilience research	5.000	-
FY 2024 Accomplishments: Congressional Interest Item funding provided for Extreme temperatures energy resilience research.		
Congressional Add: Innovative design and manufacturing of advanced composites/multi material protective systems	5.000	2.500
FY 2024 Accomplishments: Congressional Interest Item funding provided for Innovative design and manufacturing of advanced composites/multi material protective systems.		
FY 2025 Plans: Congressional Interest Item funding provided for Innovative design and manufacturing of advanced composites/multi material protective systems.		
Congressional Add: Rechargeable lithium batteries	5.000	-
FY 2024 Accomplishments: Congressional Interest Item funding provided for Rechargeable lithium batteries.		
Congressional Add: Soft target protection	5.000	-
FY 2024 Accomplishments: Congressional Interest Item funding provided for Soft target protection.		
Congressional Add: hydrogen fuel cell back-up power system development	5.000	-
FY 2024 Accomplishments: Congressional Interest Item funding provided for hydrogen fuel cell back-up power system development.		
Congressional Add: mobile micro-reactor program	5.000	-
FY 2024 Accomplishments: Congressional Interest Item funding provided for mobile micro-reactor program.		
Congressional Add: reconfigurable underground test and evaluation	5.000	-

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army		Date: June 2025
Appropriation/Budget Activity 2040 / 3	R-1 Program Element (Number/Name) PE 0603119A / <i>Ground Advanced Technology</i>	Project (Number/Name) BO3 / <i>MILITARY ENGINEERING TECHNOLOGY DEMONSTRATION (CA)</i>
B. Accomplishments/Planned Programs (\$ in Millions)	FY 2024	FY 2025
FY 2024 Accomplishments: Congressional Interest Item funding provided for reconfigurable underground test and evaluation.		
Congressional Add: cross laminated timber FY 2024 Accomplishments: Congressional Interest Item funding provided for cross laminated timber.	5.500	-
Congressional Add: anticipating threats to natural systems FY 2024 Accomplishments: Congressional Interest Item funding provided for anticipating threats to natural systems.	6.000	-
Congressional Add: novel materials for smart infrastructure systems FY 2024 Accomplishments: Congressional Interest Item funding provided for novel materials for smart infrastructure systems.	6.000	-
Congressional Add: Secure management of energy generation and storage FY 2024 Accomplishments: Congressional Interest Item funding provided for Secure management of energy generation and storage.	6.000	-
Congressional Add: Materials and manufacturing technology for cold environments FY 2024 Accomplishments: Congressional Interest Item funding provided for Materials and manufacturing technology for cold environments.	6.000	-
Congressional Add: Weapon terminal effects in extreme temperatures FY 2024 Accomplishments: Congressional Interest Item funding provided for Weapon terminal effects in extreme temperatures.	6.000	-
Congressional Add: virtual environment for cold weather mobility testing FY 2024 Accomplishments: Congressional Interest Item funding provided for virtual environment for cold weather mobility testing.	6.000	-
Congressional Add: Rapid entry and sustainment for the arctic FY 2024 Accomplishments: Congressional Interest Item funding provided for Rapid entry and sustainment for the arctic.	7.000	-
Congressional Add: additive manufacturing with indigenous materials	8.000	-

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army		Date: June 2025
Appropriation/Budget Activity 2040 / 3	R-1 Program Element (Number/Name) PE 0603119A / <i>Ground Advanced Technology</i>	Project (Number/Name) BO3 / <i>MILITARY ENGINEERING TECHNOLOGY DEMONSTRATION (CA)</i>
B. Accomplishments/Planned Programs (\$ in Millions)		
	FY 2024	FY 2025
FY 2024 Accomplishments: Congressional Interest Item funding provided for additive manufacturing with indigenous materials.		
Congressional Add: developing engineering practices for ecosystem design solutions	8.000	-
FY 2024 Accomplishments: Congressional Interest Item funding provided for developing engineering practices for ecosystem design solutions.		
Congressional Add: ruggedized deployable solar generator	8.000	-
FY 2024 Accomplishments: Congressional Interest Item funding provided for ruggedized deployable solar generator.		
Congressional Add: Ultra-high strength steel construction material	8.000	-
FY 2024 Accomplishments: Congressional Interest Item funding provided for Ultra-high strength steel construction material.		
Congressional Add: Binder jet additive components	10.000	-
FY 2024 Accomplishments: Congressional Interest Item funding provided for Binder jet additive components.		
Congressional Add: geoengineering material solutions	10.000	-
FY 2024 Accomplishments: Congressional Interest Item funding provided for geoengineering material solutions.		
Congressional Add: microgrid reliability and resiliency	10.000	10.000
FY 2024 Accomplishments: Congressional Interest Item funding provided for microgrid reliability and resiliency.		
FY 2025 Plans: Congressional Interest Item funding provided for microgrid reliability and resiliency.		
Congressional Add: Water reuse consortium	10.000	-
FY 2024 Accomplishments: Congressional Interest Item funding provided for Water reuse consortium.		
Congressional Add: Clean modular hydropower	14.000	-
FY 2024 Accomplishments: Congressional Interest Item funding provided for Clean modular hydropower.		
Congressional Add: Cold regions research and engineering laboratory	-	8.000

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army		Date: June 2025
Appropriation/Budget Activity 2040 / 3	R-1 Program Element (Number/Name) PE 0603119A / <i>Ground Advanced Technology</i>	Project (Number/Name) BO3 / <i>MILITARY ENGINEERING TECHNOLOGY DEMONSTRATION (CA)</i>

B. Accomplishments/Planned Programs (\$ in Millions)	FY 2024	FY 2025
FY 2025 Plans: Congressional Interest Item funding provided for Cold regions research and engineering laboratory.		
Congressional Add: Cold weather mobility testing	-	5.500
FY 2025 Plans: Congressional Interest Item funding provided for Cold weather mobility testing.		
Congressional Add: expeditionary additive construction	-	2.000
FY 2025 Plans: Congressional Interest Item funding provided for expeditionary additive construction.		
Congressional Add: Expeditionary portable fission generator	-	6.000
FY 2025 Plans: Congressional Interest Item funding provided for Expeditionary portable fission generator.		
Congressional Add: Heavy vehicle simulator upgrades	-	1.000
FY 2025 Plans: Congressional Interest Item funding provided for Heavy vehicle simulator upgrades.		
Congressional Add: ruggedized expeditionary self-contained generator	-	10.000
FY 2025 Plans: Congressional Interest Item funding provided for ruggedized expeditionary self-contained generator.		
Congressional Add: Smart and resilient installations	-	2.500
FY 2025 Plans: Congressional Interest Item funding provided for Smart and resilient installations.		
Congressional Adds Subtotals	235.500	47.500

C. Other Program Funding Summary (\$ in Millions) N/A
Remarks
D. Acquisition Strategy N/A

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army										Date: June 2025		
Appropriation/Budget Activity 2040 / 3					R-1 Program Element (Number/Name) PE 0603119A / Ground Advanced Technology				Project (Number/Name) CJ9 / Ground Enabling University Adv Development			
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
CJ9: Ground Enabling University Adv Development	-	4.060	6.048	-	-	-	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The Project matures and demonstrates advanced developments and technological innovations from academia, in the focus areas of ground autonomy, Artificial Intelligence / Machine Learning (AI/ML) and robotics, occupant/vehicle survivability and other ground platform technologies of importance to the Army, by maturing and demonstrating technologies with the goal of delivering technology to the warfighter more quickly. This Project matures and demonstrates advanced technologies with a focus on mid to far-term Army modernization priorities while also maintaining delivery of near-term technologies critical to the next generation combat vehicles. This Project focuses on maturation and demonstration of various advanced technologies originating from extramural applied research in academia pertaining to navigation/ routing, autonomous robotic vehicles with the use of artificial intelligence and machine learning as applied to ground mobility and maneuver, and other innovative ground enabling applied research technologies. This Project also matures and demonstrates advanced technologies leading to potential emerging capabilities in areas of strategic importance to the Army in autonomy, robotics and AI/ML, protection of both platform and occupant, and other ground platform technologies in propulsion, survivability, powertrain, etc., by bringing competitively selected Universities with research and development teams into Technical Alliances.

Work in this Project complements Program Element (PE) 0620144A (Ground Technology), PE 0602145A (Next Generation Combat Vehicle Technology) and PE 0603462A (Next Generation Combat Vehicle Advanced Technology).

The work cited is consistent with the Under Secretary of Defense for Research and Engineering priority focus areas.

Work in this Project is performed by the Army Research Laboratory (ARL).

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2024	FY 2025	FY 2026
Title: Robust autonomous capabilities for ground vehicles	2.050	3.874	-
Description: This effort demonstrates AI/ML and autonomous mobility integrated into ground vehicles to conduct off-road maneuvers to enable the transition from teleoperation to autonomous or semi-autonomous scenarios. Research is conducted in collaboration with university partners to advance autonomous mobility and protection of both occupant and platform in optionally manned and autonomous ground vehicles.			
FY 2025 Plans: Will mature and demonstrate collaborative reconnaissance and surveillance between both ground vehicles and air vehicles and operations with priority switching; mature and demonstrate improvements based on lessons learned from previous Combat			

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army		Date: June 2025	
Appropriation/Budget Activity 2040 / 3	R-1 Program Element (Number/Name) PE 0603119A / <i>Ground Advanced Technology</i>	Project (Number/Name) CJ9 / <i>Ground Enabling University Adv Development</i>	
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2024	FY 2025
<p>Vehicle Robotic (CoVeR) Engineering Evaluation Tests (EET); mature and demonstrate Army Research Lab's Semantic World Model incorporated in the Robotic Technical Kernel (RTK) or current Army robotic software package; demonstrates robotic capabilities in annual CoVeR EET; matures and demonstrates advanced marsupial deployment and recover technologies; validate a process of integrating early-stage academic solutions directly into Army navigation software. The benefits of this effort include an increase in the speed of robotic capability delivered to the Ground Vehicle Systems Center's CoVeR project and long-term reduction in required human-robot interaction.</p> <p><i>FY 2025 to FY 2026 Increase/Decrease Statement:</i> Funding decrease reflects efforts to foster innovation and accelerate deployment of promising technology in support of alignment with congressional priorities.</p>			
<p><i>Title:</i> Human-robot/AI interactions</p> <p><i>Description:</i> This effort matures, integrates, and demonstrates systems involving physical and cognitive levels of interactions between humans and robots, with the use of reinforcement machine learning which uses human feedback, learning from demonstrations, and safe human-aware controllers. Work is conducted in collaboration with university partners to advance autonomous mobility as well as other areas of ground platform technologies in propulsion, survivability, powertrain, sensing, and perception.</p> <p><i>FY 2025 Plans:</i> Will mature and demonstrate sensing, contact-capable navigation, and activity recognition for vehicles to move without stopping among crowds; continue to mature and demonstrate AI/ML methods for robust autonomous capabilities, cooperative tactical reasoning, real-time basic feature extraction, multi-robot long-term autonomy, human-AI collaboration, human-in-the-loop ML for autonomous navigation; Matures and demonstrates emerging technologies in human-robot interaction. The benefit of this effort is improvements to machine learning and artificial intelligence with human-robotic interactions.</p> <p><i>FY 2025 to FY 2026 Increase/Decrease Statement:</i> Funding decrease reflects realignment to Program Element (PE) 0603462A (Next Generation Combat Vehicle Advanced Technology) / Project BF4 (Combat Vehicle Robotics Adv Tech).</p>		2.010	2.174
Accomplishments/Planned Programs Subtotals		4.060	6.048
C. Other Program Funding Summary (\$ in Millions)			
N/A			
Remarks			

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army		Date: June 2025
Appropriation/Budget Activity 2040 / 3	R-1 Program Element (Number/Name) PE 0603119A / Ground Advanced Technology	Project (Number/Name) CJ9 / Ground Enabling University Adv Development
D. Acquisition Strategy N/A		

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army										Date: June 2025		
Appropriation/Budget Activity 2040 / 3					R-1 Program Element (Number/Name) PE 0603119A / Ground Advanced Technology				Project (Number/Name) CV5 / Engineer Enablers Maneuver, LOG, & Sustainment Adv			
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
CV5: Engineer Enablers Maneuver, LOG, & Sustainment Adv	-	3.192	4.818	2.643	-	2.643	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This Project matures and demonstrates joint contested logistics operations technologies and provides capabilities to operate in dispersed battlefield operations and support sustainment operations through predicted dynamic scenario development that provides critical vulnerabilities assessment and methods/equipment to mitigate potential issues.

Work in this Project complements Program Element (PE) 0602144A (Ground Technology) / Project CV3 (Engineer Enablers Maneuver, LOG, & Sustainment Apl).

The work cited is consistent with the Under Secretary of Defense for Research and Engineering priority focus areas and the Army Modernization Strategy.

Work in this Project supports the Army Science and Technology Ground portfolio.

Work is performed by the United States Army Engineer Research and Development Center Geotechnical and Structures Laboratory, Geospatial Research Laboratory, Coastal and Hydraulics Laboratory, Environmental Laboratory, Cold Regions Research and Engineering Laboratory, Construction Engineering Research Laboratory, and Information Technology Laboratory.

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2024	FY 2025	FY 2026
Title: Sustainment Planning Tool	2.779	3.085	-
Description: This effort will mature and demonstrate map-based sustainment running estimates for the prepositioning of survivable material stockpiles based on synchronized ops/intel/log running estimates and informed by artificial intelligence (AI)-based edge computing analyses.			
FY 2025 Plans: Will demonstrate an integrated map-based mission planning Sustainment Running Estimate (SRE) toolset that allows a user to visualize sustainment routes and generate reports based on estimates and assessments. These features leverage previous work completed in the sustainment Requirements and Distribution toolset, which includes iterative improvements based on user feedback. Will leverage the Command Post Computing Environment (CPCE) Data Fabric and integration with the LOGSTAT			

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army		Date: June 2025		
Appropriation/Budget Activity 2040 / 3	R-1 Program Element (Number/Name) PE 0603119A / Ground Advanced Technology	Project (Number/Name) CV5 / Engineer Enablers Maneuver, LOG, & Sustainment Adv		
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2024	FY 2025	FY 2026
tool to provide CPCE interoperability. The SRE tools will be deployed within the DoD's Joint Planning Services platform for sustainment operations and transitioned into the CPCE Program of Record (POR).				
FY 2025 to FY 2026 Increase/Decrease Statement: Funding decrease reflects planned conclusion of this effort and transition for integration with Mission Command Systems.				
Title: Planning Logistics Analysis Network System Advanced Research		0.413	1.733	2.195
Description: This effort will demonstrate new engineering applications and methodologies that support improved distributed logistics planning via multi-modal transportation networks to improve the efficiency and effectiveness of the planning and decision-making cycle during contested logistics operations.				
FY 2025 Plans: Will demonstrate beta version of route planning capability for the most mature single transportation modality, producing multiple routing options for distributed logistics planning operations. Will mature additional transportation modalities as well as the interface for integration with future Army C2 platforms.				
FY 2026 Plans: Will demonstrate logistics route planning capability for multi-route, multi-modal transportation options for distributed logistics operations in a relevant environment and optimize routines for integration of data results with future Army C2 platforms.				
FY 2025 to FY 2026 Increase/Decrease Statement: Funding increase reflects planned addition of workflows to demonstrate logistics route planning software for distributed logistics operations and optimize routines for integration of data results with future Army C2 platforms.				
Title: Worldwide Gap Analysis Program Demonstrations		-	-	0.448
Description: This effort will demonstrate new engineering applications and methodologies in support of distributed operations through improved gap crossing site selection to improve efficiency and effectiveness of the planning and decision-making processes for both uncontested and contested crossings.				
FY 2026 Plans: Will conduct baseline demonstration using existing subject matter expert tools and techniques as a benchmark for integration into gap crossing analysis.				
FY 2025 to FY 2026 Increase/Decrease Statement: FY 2026 funding increase due to planned initiation of this effort. This effort is a new start in FY 2026.				
Accomplishments/Planned Programs Subtotals		3.192	4.818	2.643

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army		Date: June 2025
Appropriation/Budget Activity 2040 / 3	R-1 Program Element (Number/Name) PE 0603119A / Ground Advanced Technology	Project (Number/Name) CV5 / Engineer Enablers Maneuver, LOG, & Sustainment Adv
C. Other Program Funding Summary (\$ in Millions) N/A		
Remarks		
D. Acquisition Strategy N/A		

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army										Date: June 2025		
Appropriation/Budget Activity 2040 / 3					R-1 Program Element (Number/Name) PE 0603119A / Ground Advanced Technology				Project (Number/Name) DA2 / SAFR Alternatives for Readiness Advanced Tech			
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
DA2: SAFR Alternatives for Readiness Advanced Tech	-	3.509	3.979	3.298	-	3.298	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This Project matures and demonstrates cross-cutting, safer alternative advanced technologies that enable warfighter readiness. These technologies also support product availability, Soldier and worker safety, and a reduced environmental footprint in the manufacturing, maintenance, and use of ground vehicles and other Army weapon systems. The Project matures and optimizes safer alternatives in technology areas including surface finishes, coatings, solvents, refrigerants, and fire suppressants. This research addresses the growing impacts to health and readiness associated with carcinogens such as hexavalent chromium, global warming chemicals including hydrofluorocarbons (HFCs), and forever chemicals such as like per- and polyfluoroalkyl substances (PFAS). This Project enables the Army to assess and resolve these types of emerging and continually evolving risks throughout the full life cycle of Army systems.

This Project complements and transitions technologies developed under Program Element (PE) 0602144A (Ground Technology) /Project DA1 (SAFR Alternatives for Readiness Applied Research).

Work in this Project is performed by the Army Research Laboratory (ARL); the Armaments Center; the Aviation and Missile Center (AVMC); the Soldier Center (SC), and the Ground Vehicle Systems Center (GVSC)

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2024	FY 2025	FY 2026
Title: Safer Alternatives for Readiness (SAFR) Advanced Technology	2.819	3.979	1.541
Description: Mature and demonstrate safer alternative advanced technologies to replace hexavalent chromium, cadmium and other harmful chemicals during surface finishing; reduce the use of volatile organic compounds and other hazardous materials in coating and repainting processes; and ensure the availability of compatible next generation refrigerants and fire suppressants with low global warming potential.			
FY 2025 Plans: Demonstrate synthesis processes for emerging energetic materials; mature alternatives to phthalates in gun propellants; and optimize explosion suppressants that do not rely on restricted HFCs for use in crew compartments; demonstrate synthesis processes for emerging energetic materials using novel nitration methods; mature alternatives to endocrine disrupting phthalates used in gun propellants to improve the mechanical properties of the propellants; and optimize explosion suppressants that do not rely on restricted HFCs for use in crew compartments.			
FY 2026 Plans:			

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army		Date: June 2025		
Appropriation/Budget Activity 2040 / 3	R-1 Program Element (Number/Name) PE 0603119A / Ground Advanced Technology	Project (Number/Name) DA2 / SAFR Alternatives for Readiness Advanced Tech		
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2024	FY 2025	FY 2026
Will demonstrate PFAS-free engineering fluids for mixing energetic formulations; evaluate high-solids paint primer formulations as part of the Chemical Agent Resistant Coating system; and mature alternative fire suppression agents to replace HFCs in ground vehicles. FY 2025 to FY 2026 Increase/Decrease Statement: Funding decrease reflects completion to maturation of alternatives to phthalates in gun propellants research				
Title: Corrosion Control Description: Enhance Army readiness and reliability by optimizing materials and processes for corrosion prevention through design for future systems and product improvements for fielded systems; validate approaches for corrosion assessment and correction through depot- and field-level maintenance; and improve corrosion prevention during operation and operational storage, transportation and temporary storage, and long-term storage or warehousing. FY 2026 Plans: Will demonstrate processes for improved corrosion prevention in ammunition packaging; optimize methods for humidity monitoring and control for packaged and containerized items; and mature automated corrosion assessment and machine learning techniques to objectively evaluate corrosion. FY 2025 to FY 2026 Increase/Decrease Statement: Funding increase reflects initiation of Corrosion Control.		-	-	1.757
Title: Resilient, Energetic Efficient Production of PBXs (REEPP) Description: This effort will support a pilot/production scale facilitation which can manufacture polymer bound explosives (PBX) compositions in a distributed manner using spray dry energy efficient and scalable coating technology.		0.690	-	-
Accomplishments/Planned Programs Subtotals		3.509	3.979	3.298
C. Other Program Funding Summary (\$ in Millions) N/A				
Remarks				
D. Acquisition Strategy N/A				

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army										Date: June 2025		
Appropriation/Budget Activity 2040 / 3					R-1 Program Element (Number/Name) PE 0603119A / Ground Advanced Technology				Project (Number/Name) DG2 / Advanced Development of Obscurants			
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
DG2: Advanced Development of Obscurants	-	3.211	2.832	2.655	-	2.655	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The Project matures and demonstrates obscurant technologies with potential to enhance personnel and platform survivability by degrading threat force surveillance sensors and defeating the enemy's target acquisition devices, missile guidance, and directed energy weapons. Dissemination systems for new and improved obscurants are developed with the goal of providing efficient and safe screening of deployed forces.

Work in this Project compliments Program Element (PE) 0602144A (Ground Technology) / Project DG1 (Development of Obscurants)

The cited work is consistent with the Under Secretary of Defense for Research and Engineering priority focus areas and the Army modernization strategy.

Work in this Project is performed by the Chemical Biological Center (CBC).

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2024	FY 2025	FY 2026
Title: Advanced Obscuration	2.722	2.832	2.655
Description: This effort matures and demonstrates the dissemination of new and advanced obscurants.			
FY 2025 Plans: Will explore packaging of higher performing millimeter wave obscurants to minimize corrosion issues associated with long term storage; continue to investigate novel bi-spectral obscuration materials, as well as working to increase the performance of existing materials through alternate drying methods; further investigate the integration and dissemination methodology of novel obscurant materials.			
FY 2026 Plans: Will continue efforts on packaging and dissemination of higher performing millimeter wave obscurants to minimize corrosion issues associated with long term storage; continue to advance the performance of millimeter wave obscurant material; continue to investigate novel bi-spectral obscuration materials and their performance in extreme environments, as well as working to increase the scale of production of materials through alternate drying methods for future multispectral application; and further investigate the integration and dissemination methodology of novel obscurant materials.			
FY 2025 to FY 2026 Increase/Decrease Statement:			

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army		Date: June 2025		
Appropriation/Budget Activity 2040 / 3	R-1 Program Element (Number/Name) PE 0603119A / Ground Advanced Technology	Project (Number/Name) DG2 / Advanced Development of Obscurants		
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2024	FY 2025	FY 2026
Funding decrease reflects realignment to Program Element (PE) 0603462A (Next Generation Combat Vehicle Advanced Technology) / Project BF4 (Combat Vehicle Robotics Adv Tech).				
Title: Arctic Fuel Distribution Hose Testing Project		0.489	-	-
Description: This project will develop and demonstrate capability of low temperature components in an arctic operational environment: evaluation of commercial low temperature hoses to Army requirements found in MIL-DTL-6615 and MIL-PRF-370 at the Army's GVSC Fuels and Lubricant Research Facility. Hoses that successfully complete the testing will be procured for a demonstration with the 11th Airborne Division at Fort Wainwright, AK.				
Accomplishments/Planned Programs Subtotals		3.211	2.832	2.655
C. Other Program Funding Summary (\$ in Millions)				
N/A				
Remarks				
D. Acquisition Strategy				
N/A				

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army										Date: June 2025		
Appropriation/Budget Activity 2040 / 3					R-1 Program Element (Number/Name) PE 0603119A / Ground Advanced Technology				Project (Number/Name) DI8 / Environmental Security Resilience Adv Tech			
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
DI8: Environmental Security Resilience Adv Tech	-	-	0.315	1.753	-	1.753	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		
Note In Fiscal Year 2025 (FY25), funding in the amount of \$0.315 million was realigned within PE 0603119A / Ground Advanced Technology from project DA2 / SAFR Alternatives for Readiness Advanced Tech to project DI8 / Environmental Security Resilience Adv Tech.												
A. Mission Description and Budget Item Justification This Project matures and demonstrates capabilities to support Army Environmental Security, providing decisions and support tools for critical mission environments to address natural resource impediments, man-made stressors, extreme weather, and environmental engineering challenges that impact mission, infrastructure, training activities, deployment staging or present security concerns to operations. Project capabilities span the functional domains of strategic support area management, emergency preparedness, surge capacity, environmental impact on operations, and analysis of future operational environment and environmental threats. This effort will provide new material solutions, models and decision support tools for operational planning and infrastructure management. Work in this Project complements Program Element (PE) 0602144A (DI7) / Project (Environmental Security Resilience Tech). The cited work is consistent with the Under Secretary of Defense for Research and Engineering priority focus areas and the Army Modernization Strategy. Work in this Project is performed by the United States Army Engineer Research and Development Center Environmental Laboratory, Construction Research Engineering Laboratory, and the Cold Regions Research and Engineering Laboratory.												
B. Accomplishments/Planned Programs (\$ in Millions)									FY 2024	FY 2025	FY 2026	
Title: PFAS Risk Reduction Advanced Development									-	0.315	1.254	
Description: This effort will mature the per- and polyfluorinated substances (PFAS) risk-based decision framework tools to enabled rapid science-based-risk decisions for Army installation managers. This effort also shares information across the Army installation community through a PFAS communications hub.												
FY 2025 Plans: Will mature the functional communication modular tool set and integrate and optimize the PFAS risk-based decision framework. Will exploit case studies to optimize the modular tool set final designs.												
FY 2026 Plans:												

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army		Date: June 2025		
Appropriation/Budget Activity 2040 / 3	R-1 Program Element (Number/Name) PE 0603119A / <i>Ground Advanced Technology</i>	Project (Number/Name) DI8 / <i>Environmental Security Resilience Adv Tech</i>		
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2024	FY 2025	FY 2026
Will conduct large PFAS mesocosm study to determine PFAS fate and transport in a complex system and combine data with PFAS modeling effort to larger field scale application. Will develop PFAS hub modular design to interact with existing PFAS tools. FY 2025 to FY 2026 Increase/Decrease Statement: Funding increase reflects planned increase of workflows to begin mesocosm and field scale experiments.				
Title: Ruggedized Unexploded Ordnance (UXO) Ultra Light Electro-magnetic Array for Extreme Environments (DEMO) Description: This effort will demonstrate the multi-platform compatible ultra-light electromagnetic array's ability to identify and classify metallic/conventional unexploded ordnance in operational environments, various terrains, and in all seasons. FY 2026 Plans: Will mature ultra-light electro-magnetic array sensors and corresponding algorithms to detect and classify metallic/conventional unexploded ordnance in all seasons. FY 2025 to FY 2026 Increase/Decrease Statement: Funding increase reflects planned initiation of this effort.		-	-	0.499
Accomplishments/Planned Programs Subtotals		-	0.315	1.753
C. Other Program Funding Summary (\$ in Millions) N/A Remarks D. Acquisition Strategy N/A				

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army										Date: June 2025		
Appropriation/Budget Activity 2040 / 3					R-1 Program Element (Number/Name) PE 0603119A / <i>Ground Advanced Technology</i>				Project (Number/Name) DI9 / <i>Comprehensive Adapt Operational Energy Adv Tech</i>			
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
DI9: <i>Comprehensive Adapt Operational Energy Adv Tech</i>	-	-	0.601	-	-	-	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This Project will provide power control and distribution hardware (i.e., inverters and metering and monitoring equipment) that supports interoperability between the energy source program of record, such as Advanced Medium Mobile Power Source (AMMPS) and energy storage solutions at the tactical level. This project matures, demonstrates, and integrates a seamless bridge between low and medium voltage tactical generators (defined as 500kW and below), and improves decision tools to assist the Commander in choosing the optimal operational energy power storage type for their mission or force structure.

The cited work is consistent with the Under Secretary of Defense for Research and Engineering priority focus areas.

Work in this Project is performed by the United States Army Engineer Research and Development Center, Construction Engineering Research Laboratory.

B. Accomplishments/Planned Programs (\$ in Millions)	FY 2024	FY 2025	FY 2026
Title: Operational Energy Life Cycle Management for Contingency Bases Demonstrations Description: This effort demonstrates novel operational energy storage solutions to address distributed operations in multidomain operation and reduce fuel demand of Army contingency operations. FY 2025 Plans: Will assess inverters that can transfer power between power generation sources and energy storage solutions to reduce the overall fuel demand in Army contingency operations. FY 2025 to FY 2026 Increase/Decrease Statement: Funding decrease reflects Army reduction.	-	0.601	-
Accomplishments/Planned Programs Subtotals	-	0.601	-

C. Other Program Funding Summary (\$ in Millions)
N/A

Remarks

D. Acquisition Strategy
N/A

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Army	Date: June 2025
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Appropriation/Budget Activity 2040: Research, Development, Test & Evaluation, Army / BA 3: Advanced Technology Development (ATD)					R-1 Program Element (Number/Name) PE 0603134A / Counter Improvised-Threat Simulation							
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
Total Program Element	-	20.965	21.398	15.692	-	15.692	-	-	-	-	-	-
CD3: Counter Improvised-Threat Simulation	-	20.965	21.398	15.692	-	15.692	-	-	-	-	-	-

A. Mission Description and Budget Item Justification

This Program Element (PE) develops technology for detecting and defeating Improvised Explosive Devices (IEDs). The goal of this research is to increase the ability of deployed forces to positively identify IEDs with minimal false alarms and positively neutralize or mitigate the effects of IEDs with minimal collateral damage.

This PE is executed by the Army Futures Command (AFC) in coordination with the Under Secretary of Defense for Research and Engineering (USD/R&E) and the Defense Threat Reduction Agency (DTRA).

B. Program Change Summary (\$ in Millions)	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total
Previous President's Budget	21.672	21.398	21.680	-	21.680
Current President's Budget	20.965	21.398	15.692	-	15.692
Total Adjustments	-0.707	0.000	-5.988	-	-5.988
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-0.707	-			
• Adjustments to Budget Years	-	-	-5.988	-	-5.988

Change Summary Explanation

Decrease in FY26 funding from the previous PB is due to fewer targets of interest being addressed.

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army										Date: June 2025		
Appropriation/Budget Activity 2040 / 3					R-1 Program Element (Number/Name) PE 0603134A / Counter Improvised-Threat Simulation				Project (Number/Name) CD3 / Counter Improvised-Threat Simulation			
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
CD3: Counter Improvised-Threat Simulation	-	20.965	21.398	15.692	-	15.692	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This Project develops, matures, and demonstrates technologies for detecting and defeating improvised explosive devices (IEDs) and other threat explosive devices. The goal of this research is to increase the ability of deployed forces to positively identify IEDs with minimal false alarms and increase the rate of advance of deployed forces, as well as to identify vehicle and personnel borne IEDs at fixed sites. Additionally, the objective is to positively neutralize or mitigate the effects of IEDs with minimal collateral damage.

Work in this Project complements Program Element (PE) 0602134A (Counter Improvised-Threat Advanced Studies) / Project CD2 (Counter Improvised-Threat Advanced).

Work in this Project is executed by the U.S. Army Combat Capabilities Development Command (DEVCOM) in coordination with the Under Secretary of Defense for Research and Engineering (USD (R&E) with work being led by Joint Service laboratories in partnerships with industry and academia.

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2024	FY 2025	FY 2026
Title: Standoff Detection of IED Threats in All Environments	9.921	-	-
Description: This effort develops technology to detect IED threats at standoff distances. Technologies include electro-optical, radar, light detection and ranging (LIDAR), atomic magnetometer and other technologies applicable to detecting IEDs and their components that can be integrated on dismounted Soldiers, ground, water-based and aerial systems, or at fixed sites. This effort also develops technologies and network techniques to detect the electronic signature of radio-controlled IEDs. Technologies will be validated on their ability to detect IEDs and their components within infrastructure, on or under ground and water, and attached to vehicles or personnel. The goal for these technologies is to achieve high probabilities of detection while minimizing false alarms from naturally occurring and man-made entities.			
Title: IED Neutralization, Prevention and Mitigation	3.031	-	-
Description: This effort develops technology critical to neutralizing and mitigating the effects of IEDs at standoff distances. Technologies include directed energy sources, energetic or kinetic effectors, encasement of the threat and Soldier, and platform and base protection technologies. These technologies will be demonstrated to neutralize IEDs in place and protect soldiers and equipment from the effects of IEDs. This effort also explores advanced techniques to robotically manipulate IEDs. The goal for these technologies is to achieve high probabilities of avoiding the IED's effects on friendly forces.			

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army		Date: June 2025		
Appropriation/Budget Activity 2040 / 3	R-1 Program Element (Number/Name) PE 0603134A / Counter Improvised-Threat Simulation	Project (Number/Name) CD3 / Counter Improvised-Threat Simulation		
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2024	FY 2025	FY 2026
Title: Enabling C-IED Technologies Description: This effort develops technologies that support the detection, prevention, neutralization and mitigation of IED threats. Technologies exploit data sciences including sensor processing algorithms, integration of sensor data, data processing and analytics, threat forecasting, and autonomous maneuver. Techniques will be demonstrated that determine detection of IED threats and identify trends to forecast probabilities of encountering or attributing IEDs based on operational data and machine learning techniques. The goals for these technologies are to achieve high probabilities of detecting, predicting and attributing IEDs threats.		8.013	-	-
Title: Counter Improvised Threat Advanced Technologies Description: This effort matures and demonstrates technology to detect IED threats at standoff distances. Technologies include electro-optical, radar, light detection and ranging (LIDAR), atomic magnetometer and other technologies applicable to detecting IEDs and their components that can be integrated on dismounted Soldiers, ground, water-based and aerial systems or at fixed sites. This effort also matures and demonstrates technologies and network techniques to detect the electronic signature of radio-controlled IEDs, as well as technology critical to neutralizing and mitigating the effects of IEDs at standoff distances. Technologies include directed energy sources, energetic or kinetic effectors, encasement of the threat and Soldier, platform and base protection technologies. Will demonstrate these technologies to neutralize IEDs in-place and protect soldiers and equipment from the effects of IEDs. This effort also matures technologies that exploit data sciences including sensor processing algorithms, integration of sensor data, data processing and analytics, threat forecasting, and autonomous maneuver. Will demonstrate techniques that detect IED threats and identify trends to forecast probabilities of encountering or attributing IEDs based on operational data and machine learning techniques. FY 2025 Plans: Will demonstrate electro-optical/infrared (EO/IR), electromagnetic (EM), and radio frequency (RF) sensor technologies coupled with automated detection algorithms for the standoff detection of IEDs across a broad range of emplacement scenarios and environments. Will continue to optimize existing and new sensor technologies on ground platforms, aerial platforms, and at fixed sites. Will validate the use of multiple sensor modalities with data processing techniques to improve detection of vehicle borne IEDs and personnel borne IEDs in various operational conditions. Will demonstrate kinetic, jamming, spoofing, and directed energy neutralization technologies to disrupt the functioning of IEDs in both stationary applications and on the move scenarios in militarily relevant scenarios. Will exploit and optimize sensor components and processing techniques to lower SWaP. Will validate artificial intelligence and machine learning techniques for autonomous detection of threats. Will demonstrate the use of "teamed" unmanned aerial vehicle and unmanned ground sensor to provide data to facilitate multiple look angles and characterize potential threats. FY 2026 Plans:		-	21.398	15.692

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army		Date: June 2025	
Appropriation/Budget Activity 2040 / 3	R-1 Program Element (Number/Name) PE 0603134A / <i>Counter Improvised-Threat Simulation</i>	Project (Number/Name) CD3 / <i>Counter Improvised-Threat Simulation</i>	
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2024	FY 2025
<p>Will mature electro-optical/infrared (EO/IR), electromagnetic (EM), and radio frequency (RF) sensor technologies on unmanned air and ground vehicles for standoff detection of IEDs and explosive threats for challenging emplacement scenarios and complex, cluttered environments; demonstrate sensor technologies combined with new data processing techniques on ground platforms, aerial platforms, and at fixed sites to improve recognition of IEDs in various operational conditions; optimize the kinetic, jamming, spoofing, and directed energy neutralization technologies to disrupt the functioning of IEDs in militarily relevant scenarios both stationary and on the move; optimize sensor payloads and techniques to lower size, weight and power and enable on-board processing on unmanned aerial platforms; demonstrate novel techniques for autonomous recognition of threats; demonstrate multiple sensor modalities on "teamed" unmanned aerial vehicle and unmanned ground vehicles, using multiple look angles to locate, characterize, and deconflict potential threats.</p> <p><i>FY 2025 to FY 2026 Increase/Decrease Statement:</i> Funding decrease reflects fewer targets of interest being addressed.</p>			
Accomplishments/Planned Programs Subtotals		20.965	21.398
C. Other Program Funding Summary (\$ in Millions)			
N/A			
Remarks			
D. Acquisition Strategy			
N/A			

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Army	Date: June 2025
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Appropriation/Budget Activity	R-1 Program Element (Number/Name)											
2040: Research, Development, Test & Evaluation, Army / BA 3: Advanced Technology Development (ATD)	PE 0603135A / Counter Small Unmanned Aerial Systems (C-SUAS) Advanced Technology											
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
Total Program Element	-	-	-	7.773	-	7.773	-	-	-	-	-	-
A32: Counter Small Unmanned Aircraft Sys (C-sUAS) Adv	-	-	-	7.773	-	7.773	-	-	-	-	-	-

Note

This is not a new start.

A. Mission Description and Budget Item Justification

This Program Element (PE) develops, matures, and demonstrates novel capabilities that aid in the detection, tracking, identification, mitigation, and/or defeat of small unmanned aerial systems (sUAS) groups 1-3. Develops and matures counter-small UAS (C-SUAS) detection capabilities in radar, radio frequency (RF), electro-optical and infrared (EO/IR), and acoustic signature regimes. Develops capabilities to track and predict UAS flight paths, airspace situational awareness, and/or location of UAS operators to increase defeat and force protection capabilities. Matures identification methods to discern aerial systems and payloads. Matures and demonstrates algorithms to enable threat prioritization, airspace control, coordinated response, and resource management of C-SUAS capabilities. Mature, demonstrate, and transition interceptor capabilities to deliver physical effects that enable faster intercept, greater standoff ranges, increased magazine depth, survivability, affordability, and/or decrease in size, weight, and/or power requirements.

The cited research is consistent with the Under Secretary of Defense for Research and Engineering priority focus areas and the Army modernization strategy.

<u>B. Program Change Summary (\$ in Millions)</u>	<u>FY 2024</u>	<u>FY 2025</u>	<u>FY 2026 Base</u>	<u>FY 2026 OOC</u>	<u>FY 2026 Total</u>
Previous President's Budget	0.000	0.000	0.000	-	0.000
Current President's Budget	0.000	0.000	7.773	-	7.773
Total Adjustments	0.000	0.000	7.773	-	7.773
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Adjustments to Budget Years	-	-	7.773	-	7.773

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Army		Date: June 2025
Appropriation/Budget Activity 2040: Research, Development, Test & Evaluation, Army / BA 3: Advanced Technology Development (ATD)	R-1 Program Element (Number/Name) PE 0603135A / Counter Small Unmanned Aerial Systems (C-SUAS) Advanced Technology	
<p>Change Summary Explanation</p> <p>This is not a new start. Counter Small Unmanned Aerial Systems (C-SUAS) Advanced Technology is a part of the Department of Defense Capability Based (Agile) Funding pilot, which provides enhanced capabilities by fostering innovation and accelerated deployment of promising technology. Funding increase in Fiscal Year (FY) 2026 from the previous PB to the current PB reflects realignment from Program Element (PE) 0603466A (Air and Missile Defense Advanced Technology) / Project SU2 (Counter Small Unmanned Aircraft Sys (C-sUAS) Tech).</p>		

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army										Date: June 2025		
Appropriation/Budget Activity 2040 / 3					R-1 Program Element (Number/Name) PE 0603135A / Counter Small Unmanned Aerial Systems (C-SUAS) Advanced Technology				Project (Number/Name) A32 / Counter Small Unmanned Aircraft Sys (C-sUAS) Adv			
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
A32: Counter Small Unmanned Aircraft Sys (C-sUAS) Adv	-	-	-	7.773	-	7.773	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		
Note This is not a new start.												
A. Mission Description and Budget Item Justification This Project develops, matures, and demonstrates novel capabilities that aid in the detection, tracking, identification, mitigation, and/or defeat of small unmanned aerial systems (sUAS) groups 1-3. Matures, demonstrates, and transitions interceptor capabilities to deliver physical effects that enable faster intercept, greater standoff ranges, increased magazine depth, survivability, affordability, and/or decrease in size, weight, and power requirements. Develops capabilities to track and predict UAS flight paths, airspace situational awareness, and/or location of UAS operators to increase defeat and force protection capabilities. Matures and demonstrates algorithms to enable threat prioritization, airspace control, coordinated response, and resource management of CsUAS capabilities. Matures technical solutions to defeat sUAS capabilities, including target acquisition, navigation, and control, in addition to identifying and exploiting weaknesses in sUAS system design and operation. The cited work is consistent with the Under Secretary of Defense for Research and Engineering priority focus areas and the Army modernization strategy. Work in this Project is performed by the Aviation & Missile Center (AvMC) and Armaments Center (AC).												
B. Accomplishments/Planned Programs (\$ in Millions)									FY 2024	FY 2025	FY 2026	
Title: Counter Swarm Kinetic Integrated Defeat									-	-	2.645	
Description: This effort will mature and demonstrate integrated, networked counter-swarm kinetic defeat armament systems and techniques for detecting, tracking, identifying/characterizing, and defeating swarming unmanned systems. Integrates a combined arms/multi-mission approach of armament weapons, munitions, fire control and countermeasure technologies for integrated layered defense, counter-swarm system of systems capability across distributed formation platforms.												
FY 2026 Plans: Will exploit results from small, medium, and large caliber weapon and ammunition analyses to mature solutions for counter-swarming (C-Swarm), incorporating improvements to kinetic weapon/munition systems; improve targeting and countermeasure performance for networked weapon/munition and fire control systems.												
FY 2025 to FY 2026 Increase/Decrease Statement:												

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army		Date: June 2025	
Appropriation/Budget Activity 2040 / 3	R-1 Program Element (Number/Name) PE 0603135A / Counter Small Unmanned Aerial Systems (C-SUAS) Advanced Technology	Project (Number/Name) A32 / Counter Small Unmanned Aircraft Sys (C-sUAS) Adv	
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2024	FY 2025
<p>This is not a new start. Counter Swarm Kinetic Integrated Defeat is a part of the Department of Defense Capability Based (Agile) Funding pilot, which provides enhanced capabilities by fostering innovation and accelerated deployment of promising technology. Funding increase reflects realignment from Program Element (PE) 0603466A (Air and Missile Defense Advanced Technology) / Project SU2 (Counter Small Unmanned Aircraft Sys (C-sUAS) Tech).</p> <p>Title: Extended Range C-sUAS (XRC) Adv Tech</p> <p>Description: This effort matures concepts and component technology development to increase range, reduce reaction time, increase lethality, improve reliability, and reduce reload time for C-sUAS kinetic interceptor capabilities for the maneuver forces fixed site and mobile C-sUAS configurations.</p> <p>FY 2026 Plans: Will mature concepts, designs, and initial component technologies and subsystems essential to XRC missile prototypes required capabilities; design and development of prototypes include airframe, propulsion, seeker, guidance and control components based on feedback from initial prototype designs; mature government six-degree of freedom model development; incorporate industry partner(s) designs into six-degree of freedom modeling and simulation capability and begin assessment of industry partner(s) subcomponents in government hardware-in-the-loop testing as available.</p> <p>FY 2025 to FY 2026 Increase/Decrease Statement: This is not a new start. Extended Range C-sUAS (XRC) Adv Tech is a part of the Department of Defense Capability Based (Agile) Funding pilot, which provides enhanced capabilities by fostering innovation and accelerated deployment of promising technology. Funding increase reflects realignment from Program Element (PE) 0603466A (Air and Missile Defense Advanced Technology) / Project SU2 (Counter Small Unmanned Aircraft Sys (C-sUAS) Tech).</p>		-	-
Accomplishments/Planned Programs Subtotals		-	5.128
C. Other Program Funding Summary (\$ in Millions)			
N/A			
Remarks			
D. Acquisition Strategy			
N/A			

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Army										Date: June 2025		
Appropriation/Budget Activity 2040: Research, Development, Test & Evaluation, Army / BA 3: Advanced Technology Development (ATD)					R-1 Program Element (Number/Name) PE 0603275A / Electronic Warfare Advanced Technology							
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
Total Program Element	-	-	-	83.922	-	83.922	-	-	-	-	-	-
A72: Sensor to Shooter (STS) Advanced Technology	-	-	-	22.683	-	22.683	-	-	-	-	-	-
A73: Enhanced VETRONICS Advanced Technology	-	-	-	18.882	-	18.882	-	-	-	-	-	-
A74: Navigation Warfare (NAVWAR) Advanced Technology	-	-	-	5.968	-	5.968	-	-	-	-	-	-
A75: Counter C3 Advanced Technology	-	-	-	9.669	-	9.669	-	-	-	-	-	-
A76: CEMA Sensing Advanced Technology	-	-	-	3.146	-	3.146	-	-	-	-	-	-
A77: EW for Maneuver Operations (EMO) Adv Tech	-	-	-	12.247	-	12.247	-	-	-	-	-	-
A78: Sensor Electronic Support Adv Tech	-	-	-	11.327	-	11.327	-	-	-	-	-	-
Note This is not a new start. Electronic Warfare Advanced Technology is a part of the Department of Defense Capability Based (Agile) Funding pilot, which provides enhanced capabilities by fostering innovation and accelerated deployment of promising technology. This funding is not a new start and is a realignment from: (1) Program Element (PE) 0603116A (Lethality Advanced Technology) / Project CID (Sensor to Shooter (STS) Advanced Technology) (2) PE 0603462A (Next Generation Combat Vehicle Advanced Technology) / Project BH8 (Enhanced VETRONICS Advanced Technology) (3) PE 0603463A (Network C3I Advanced Technology) / Project AM7 (Modular RF Communications Advanced Technology) (4) PE 0603463A (Network C3I Advanced Technology) / Project AN4 (Non-Traditional Waveforms Advanced Technology) (5) PE 0603463A (Network C3I Advanced Technology) / Project AN8 (COE - Every Receiver is a Sensor Advanced Tech) (6) PE 0603463A (Network C3I Advanced Technology) / Project AV8 (Navigation Warfare (NAVWAR) Advanced Technology) (7) PE 0603463A (Network C3I Advanced Technology) / Project AO1 (UNT - Every Receiver is a Sensor Advanced Tech) (8) PE 0603463A (Network C3I Advanced Technology) / Project AO7 (EW for Maneuver Operations (EMO) Adv Tech) (9) PE 0603463A (Network C3I Advanced Technology) / Project CJ8 (Assured PNT Communications Advanced Tech)												

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Army				Date: June 2025		
Appropriation/Budget Activity 2040: Research, Development, Test & Evaluation, Army / BA 3: Advanced Technology Development (ATD)		R-1 Program Element (Number/Name) PE 0603275A / Electronic Warfare Advanced Technology				
(10) PE 0603465A (Future Vertical Lift Advanced Technology) / Project CG1 (Holistic Team Survivability Adv Tech) (11) PE 0603466A (Air and Missile Defense Advanced Technology) / Project DB3 (Radar Survivability through Dis Sensing Adv Tech)						
A. Mission Description and Budget Item Justification						
This Program Element (PE) focuses on rapidly maturing and demonstrating advanced Electromagnetic Warfare (EW) capabilities for modern, multi-domain military operations. It matures cutting-edge technologies - including architectures, infrastructure, tools, and techniques - across the spectrum of EW activities: Electronic Attack (EA) to disrupt enemy Command, Control, Computing, Communications, Cyber, Intelligence, Surveillance, and Targeting (C-C5ISR&T) systems and ensure non- kinetic survivability; Electronic Support (ES) for precise detection, identification, and geolocation of enemy RF emissions to enable effective fires; Electronic Protection (EP) to bolster the resiliency and robustness of Army systems against increasingly sophisticated electronic attacks; battle management tools for intelligent planning, targeting, and execution of effects across the entire electromagnetic spectrum; and position, navigation, and timing techniques to enable coordination of electronic attacks.						
This PE aims to deliver a comprehensive and integrated EW suite that not only ensures our forces maintain a decisive advantage in the contested electromagnetic environment, but also creates novel opportunities for operational advantage, increasing unit survivability, maneuverability, and the effective employment of non-kinetic effects in highly contested and congested spaces.						
Work in this PE complements PE 0602275A (Electronic Warfare Applied Research).						
The cited research is consistent with the Under Secretary of Defense for Research and Engineering priority focus areas and the Army modernization strategy.						
B. Program Change Summary (\$ in Millions)		FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total
Previous President's Budget		0.000	0.000	0.000	-	0.000
Current President's Budget		0.000	0.000	83.922	-	83.922
Total Adjustments		0.000	0.000	83.922	-	83.922
• Congressional General Reductions		-	-			
• Congressional Directed Reductions		-	-			
• Congressional Rescissions		-	-			
• Congressional Adds		-	-			
• Congressional Directed Transfers		-	-			
• Reprogrammings		-	-			
• SBIR/STTR Transfer		-	-			
• Adjustments to Budget Years		-	-	83.922	-	83.922
Change Summary Explanation						
This is not a new start. Electronic Warfare Advanced Technology is a part of the Department of Defense Capability Based (Agile) Funding pilot, which provides enhanced capabilities by fostering innovation and accelerated deployment of promising technology. Funding increase in FY2026 reflects realignment from Program Element (PE) 0603116A (Lethality Advanced Technology) / Project CID (Sensor to Shooter (STS) Advanced Technology), PE 0603462A (Next						

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Army		Date: June 2025
Appropriation/Budget Activity 2040: Research, Development, Test & Evaluation, Army / BA 3: Advanced Technology Development (ATD)	R-1 Program Element (Number/Name) PE 0603275A / Electronic Warfare Advanced Technology	
Generation Combat Vehicle Advanced Technology) / Project BH8 (Enhanced VETRONICS Advanced Technology, PE 0603463A (Network C3I Advanced Technology) / Project AM7 (Modular RF Communications Advanced Technology), PE 0603463A (Network C3I Advanced Technology) / Project AN4 (Non-Traditional Waveforms Advanced Technology), PE 0603463A (Network C3I Advanced Technology) / Project AN8 (COE - Every Receiver is a Sensor Advanced Tech), PE 0603463A (Network C3I Advanced Technology) / Project AV8 (Navigation Warfare (NAVWAR) Advanced Technology), PE 0603463A (Network C3I Advanced Technology) / Project AO1 (UNT - Every Receiver is a Sensor Advanced Tech), PE 0603463A (Network C3I Advanced Technology) / Project AO7 (EW for Maneuver Operations (EMO) Adv Tech), PE 0603463A (Network C3I Advanced Technology) / Project CJ8 (Assured PNT Communications Advanced Tech), PE 0603465A (Future Vertical Lift Advanced Technology) / Project CG1 (Holistic Team Survivability Adv Tech), and PE 0603466A (Air and Missile Defense Advanced Technology) / Project DB3 (Radar Survivability through Dis Sensing Adv Tech).		

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army										Date: June 2025		
Appropriation/Budget Activity 2040 / 3					R-1 Program Element (Number/Name) PE 0603275A / <i>Electronic Warfare Advanced Technology</i>				Project (Number/Name) A72 / <i>Sensor to Shooter (STS) Advanced Technology</i>			
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
A72: <i>Sensor to Shooter (STS) Advanced Technology</i>	-	-	-	22.683	-	22.683	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note

This is not a new start and is a realignment from Program Element (PE) 0603116A (Lethality Advanced Technology) / Project CID (Sensor to Shooter (STS) Advanced Technology).

A. Mission Description and Budget Item Justification

This Project matures and demonstrates an advanced network lethality architecture to enable Joint All Domain Command and Control decision aid algorithms for coordinated and synchronized response and incorporates a full spectrum of effects and scalability to reduce the sensor to shooter timeline for Large Scale Combat Operations. This Project also matures and demonstrates advanced fire control software integrated with existing/emerging armaments systems for Counter small Unmanned Aerial Systems (C-sUAS) engagements. These capabilities will demonstrate C-sUAS mobility, increased stowed kills vs sUAS threats, increased protection for maneuver units, and maximize affordability. This project demonstrates unit common C-sUAS capabilities for maneuver formations.

Work in this Project complements Program Element (PE) 0602275A (Electronic Warfare Applied Research) / Project A63 (Sensor to Shooter (STS) Applied Research).

The cited work is consistent with Secretary of Defense Memorandum, Army Transformation and Acquisition reform. and Engineering priority focus areas and the Army modernization strategy.

Work in this Project supports Next Generation Combat Vehicle, Tactical Network, Future Vertical Lift, Air and Missile Defense, Soldier Lethality and Long-Range Precision Fires Army Modernization Priorities.

Work in this Project is performed by the Armaments Center and Command, Control, Computers, Communications, Cyber, Intelligence, Surveillance and Reconnaissance (C5ISR) Center.

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2024	FY 2025	FY 2026
Title: Lethal Effects Architecture for Decision Synchronization Advanced Technology	-	-	14.235
Description: This effort demonstrates advanced fire control algorithms and architectures for offensive and defense fires, and On the Move (OTM) Counter small Unmanned Aerial Systems (C-sUAS) engagements using existing/emerging armaments systems. These enhanced fire control capabilities will demonstrate increased stowed kills vs sUAS threats, increased survivability, reduced			

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army			Date: June 2025		
Appropriation/Budget Activity 2040 / 3		R-1 Program Element (Number/Name) PE 0603275A / <i>Electronic Warfare Advanced Technology</i>		Project (Number/Name) A72 / <i>Sensor to Shooter (STS) Advanced Technology</i>	
B. Accomplishments/Planned Programs (\$ in Millions)			FY 2024	FY 2025	FY 2026
burden on the warfighter, and increased mobility while maximizing affordability. This effort will demonstrate unit common C-sUAS capabilities utilizing existing remote weapon systems in the formation to maximize defense against sUAS threats.					
FY 2026 Plans: Will integrate and demonstrate collaborative distributed closed loop fire control capabilities utilizing fielded weapon systems to demonstrate C-sUAS fire control target prioritization capability; demonstrate C-sUAS closed loop fire control software for onboard optical sensors; demonstrate C-sUAS closed loop fire control software for non-collocated sensors over the network; demonstrate networked C-sUAS fire control interfaces and architecture to maximize efficiency and increase stowed kills; demonstrate C-sUAS closed loop fire control software for multiple weapon systems FY 2025 to FY 2026 Increase/Decrease Statement: This is not a new start. FY 2026 funding transferred from PE 0603116A (Lethality Advanced Technology) / Project CID (Sensor to Shooter (STS) Advanced Technology). FY 2026 funding increase reflects the increased demonstration of collaborative distributed lethality closed loop fire control, demonstration of target prioritization capability, and demonstration of remote operate fire control on manned and uncrewed platforms. Effort will mature advanced algorithms to improve killchain timelines and increase interoperability between existing and emerging systems.					
Title: Pivot Description: This project extends intelligence targeting capabilities to support battle damage assessment and orchestration of non-kinetic effects for enhanced lethality. This project seeks to augment/adjust electronic effects, in near real time, based on data collected from intelligence sources post-weapons-launch to ensure associated non-kinetic fires are resulting in the desired battlefield effects. FY 2026 Plans: Will mature tracking and data fusion techniques to provide continuous target tracking & reconnaissance via time variable multi-Intelligence data from disparate intel sources; optimize object/signal classification and tracking algorithm performance within complex and congested environments; validate sensor-to-non-kinetic weapon system messaging capabilities and provide necessary updates to support near real time updates to electronic fires/effects. FY 2025 to FY 2026 Increase/Decrease Statement: This is not a new start. FY 2026 funding transferred from PE 0603116A (Lethality Advanced Technology) / Project CID (Sensor to Shooter (STS) Advanced Technology).			-	-	3.974

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army		Date: June 2025	
Appropriation/Budget Activity 2040 / 3	R-1 Program Element (Number/Name) PE 0603275A / <i>Electronic Warfare Advanced Technology</i>	Project (Number/Name) A72 / <i>Sensor to Shooter (STS) Advanced Technology</i>	

B. Accomplishments/Planned Programs (\$ in Millions)	FY 2024	FY 2025	FY 2026
FY 2026 funding increase due to planned maturation of multi-Intelligence data fusion algorithms and object tracking performance within higher complexity environments.			
Title: Maestro Description: This effort will provide Army Commanders the full range of multi-domain options by integrating kinetic and non-kinetic targeting and effects into the mission execution and mission planning cycles. This effort will mature software tools to augment the kinetic targeting process, to include non-kinetic engagement. FY 2026 Plans: Will improve system components of intelligence analytics for non-kinetic effects and overlay of non-kinetic effects to be integrated with kinetic targeting in support of layer fires effect planning and execution; demonstrate intelligence analytics for non-kinetic effects and overlay in a laboratory environment. FY 2025 to FY 2026 Increase/Decrease Statement: FY 2026 funding transferred from PE 0603116A (Lethality Advanced Technology) / Project CID (Sensor to Shooter (STS) Advanced Technology). FY 2026 funding increase reflects initiation of Maestro.	-	-	4.474
Accomplishments/Planned Programs Subtotals	-	-	22.683

C. Other Program Funding Summary (\$ in Millions)
 N/A

Remarks

D. Acquisition Strategy
 N/A

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army										Date: June 2025		
Appropriation/Budget Activity 2040 / 3					R-1 Program Element (Number/Name) PE 0603275A / <i>Electronic Warfare Advanced Technology</i>				Project (Number/Name) A73 / <i>Enhanced VETRONICS Advanced Technology</i>			
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
A73: <i>Enhanced VETRONICS Advanced Technology</i>	-	-	-	18.882	-	18.882	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note

This is not a new start and is a realignment from PE 0603462A (Next Generation Combat Vehicle Advanced Technology) / Project BH8 (Enhanced VETRONICS Advanced Technology).

A. Mission Description and Budget Item Justification

This Project develops Enhanced On-Platform Power and Data Management as the critical enabler for rapidly deployable, scalable, and adaptable Electronic Warfare (EW) capabilities. This Project will demonstrate comprehensive on-platform solutions leveraging commercially developed technologies and open architectures to deliver rapid, cost-effective capabilities for the U.S. Army. The goal is to significantly increase warfighter survivability and lethality by optimizing ground vehicle power, electronics, and data systems for integrated EW operations. This includes advancements in power generation, high-density energy storage, and intelligent distribution networks.

Meeting the escalating power and data demands of modern EW systems - including advanced techniques like jamming, AI-powered signal processing, and wideband spectrum monitoring - necessitates breakthroughs in energy storage density, efficiency, and robust data distribution infrastructures. The Project will mature technologies focused on protection and survivability, defeating ground threats through non-kinetic EW effects.

Key technical challenges include increasing power and energy storage density while minimizing size and weight, optimizing on-platform data and sensor distribution networks, and effectively managing thermal loads generated by high-power components. Success will enable faster integration of EW capabilities, reduce reliance on proprietary solutions, and support a more agile and responsive force.

The cited research is consistent with the Under Secretary of Defense for Research and Engineering priority focus areas and the Army modernization strategy.

Work in this Project is performed by the Ground Vehicle Systems Center (GVSC) and Command, Control, Computers, Communications, Cyber, Intelligence, Surveillance and Reconnaissance (C5ISR) Center.

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2024	FY 2025	FY 2026
Title: Power and Data Electronic Warfare	-	-	12.512
Description: This effort matures and demonstrates enhanced on-platform power, electronics, and data architectures and infrastructures to enable rapidly deployable, scalable, and adaptable Electronic Warfare (EW) capabilities. Leveraging commercial			

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army		Date: June 2025	
Appropriation/Budget Activity 2040 / 3	R-1 Program Element (Number/Name) PE 0603275A / <i>Electronic Warfare Advanced Technology</i>	Project (Number/Name) A73 / <i>Enhanced VETRONICS Advanced Technology</i>	
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2024	FY 2025
<p>technologies and collaborative partnerships, it focuses on developing the open architectures to rapidly integrate and demonstrate industry available EW solutions. To meet increasing EW demands on an integrated ground platform, advanced technologies will be integrated and demonstrated to include: advanced power generation, high-density energy storage, intelligent power distribution, embedded electronics, and expeditionary power. This effort will further explore the effects of integrated EW capabilities on the platform's electromagnetic effects signature and develop solutions to mitigate those effects. By optimizing power efficiency, size, weight, thermal management, and real-time data processing to enable EW, this effort will significantly enhance battlefield situational awareness and improve warfighter survivability and lethality.</p> <p>FY 2026 Plans: Will develop data, electronics, and power on-platform architectures and components to enable rapidly deployable, scalable and adaptable Electronic Warfare (EW) capabilities; mature key on-platform sensor fusion to enable efficient sensing, collection orchestration, and intelligence analytics to provide integrated emerging EW capabilities; leverage commercial technologies and collaborative partnerships to rapidly integrate emerging capabilities and optimize solutions for the military environment.</p> <p>FY 2025 to FY 2026 Increase/Decrease Statement: This is not a new start. FY 2026 funding transferred from PE 0603462A (Next Generation Combat Vehicle Advanced Technology) / Project BH8 (Enhanced VETRONICS Advanced Technology). FY 2026 funding increase reflects an increase of E-Vetronics capabilities, maturation and demonstration for GCIA and ensure the E-Vetronics effort is congruent with current combat platform modernization efforts.</p>			
<p>Title: EW Sensing and Countermeasures</p> <p>Description: This effort matures and demonstrates next generation holistic EW threat warning countermeasure techniques to support a layered modular survivability concept for ground platforms. This effort will be focused on EW countermeasure techniques to defeat high-priority threats to the maneuver force.</p> <p>FY 2026 Plans: Will provide techniques to defeat emerging highly capable multi-spectral threats to Army ground vehicles; optimize threat detection and countermeasure hardware to address threats with non-traditional trajectories and kill chains; demonstrate improved EW defeat optimized for multi-platform formation-based protection.</p> <p>FY 2025 to FY 2026 Increase/Decrease Statement: This is not a new start. FY 2026 funding transferred from PE 0603462A (Next Generation Combat Vehicle Advanced Technology) / Project BH8 (Enhanced VETRONICS Advanced Technology). FY 2026 funding increase reflects an increase of EW Sensing and Countermeasures capabilities, maturation and demonstration.</p>		-	-
Accomplishments/Planned Programs Subtotals		-	18.882

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army		Date: June 2025
Appropriation/Budget Activity 2040 / 3	R-1 Program Element (Number/Name) PE 0603275A / <i>Electronic Warfare Advanced Technology</i>	Project (Number/Name) A73 / <i>Enhanced VETRONICS Advanced Technology</i>
C. Other Program Funding Summary (\$ in Millions) N/A		
Remarks		
D. Acquisition Strategy N/A		

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army										Date: June 2025		
Appropriation/Budget Activity 2040 / 3					R-1 Program Element (Number/Name) PE 0603275A / <i>Electronic Warfare Advanced Technology</i>				Project (Number/Name) A74 / <i>Navigation Warfare (NAVWAR) Advanced Technology</i>			
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
A74: <i>Navigation Warfare (NAVWAR) Advanced Technology</i>	-	-	-	5.968	-	5.968	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note

This is not a new start and is a realignment from PE 0603463A (Network C3I Advanced Technology) / Project AV8 (Navigation Warfare (NAVWAR) Advanced Technology).

A. Mission Description and Budget Item Justification

This Project matures and demonstrates capabilities allowing the Army to monitor, understand, and control the Navigation Warfare (NAVWAR) environment. This requires an integrated approach to Electromagnetic Protection (EP), Electromagnetic Support (ES), and Electromagnetic Attack (EA) to rapidly characterize the changing NAVWAR environment, deny Positioning, Navigation, and Timing (PNT) based capabilities to our adversaries, and maintain Army PNT capabilities.

Work in this Project complements Program Element (PE) 0602275A (Electronic Warfare Applied Research) / Project A64 (Autonomous Navigation Technology).

The cited work is consistent with the Under Secretary of Defense for Research and Engineering priority focus areas and the Army modernization strategy.

Work in this Project is performed by the Command, Control, Computers, Communications, Cyber, Intelligence, Surveillance, and Reconnaissance (C5ISR) Center.

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2024	FY 2025	FY 2026
Title: Intelligent Electronic Protect (IEP) Advanced Technology	-	-	5.968
Description: This effort matures and demonstrates hardware and software capabilities that will enable an Assured Position Navigation and Timing (APNT) system to additionally function as a Navigation Warfare (NAVWAR) sensor. The IEP enabled APNT system will be able to provide Electromagnetic Support capabilities for detection and identification information about jamming and spoofing threats in the Global Positioning System (GPS) environment. IEP will help protect units from spoofing and effectively increase the number and availability of NAVWAR sensors in the field, identifying fielded and commercial systems that can be augmented to provide a NAVWAR sensing capability. The proliferation of NAVWAR sensors will allow the Electronic Warfare Planning and Management Tool (EWPMPT) to create a NAVWAR Common Operating Picture with greater accuracy and coverage. The NAVWAR COP will allow Commanders to make more informed decisions about contested maneuver operations, to understand anticipated degraded PNT effects, to help increase effective employment of Army small unmanned aerial systems (sUAS) and PNT-contested areas and enable more accurate and lethal fires missions			

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army		Date: June 2025	
Appropriation/Budget Activity 2040 / 3	R-1 Program Element (Number/Name) PE 0603275A / <i>Electronic Warfare Advanced Technology</i>	Project (Number/Name) A74 / <i>Navigation Warfare (NAVWAR) Advanced Technology</i>	
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2024	FY 2025
<p><i>FY 2026 Plans:</i> Will validate prototype sensor specification results on a software defined GPS receiver hardware for NAVWAR sensor functionality; mature algorithm development of NAVWAR data to provide enhanced visualization of NAVWAR and APNT subsystem communication to further aid in the NAVWAR common operating picture; demonstrate end-to-end NAVWAR sensor capabilities on an existing relevant GPS receiver to determine the performance improvement of Electromagnetic Protection to the receiver with the use of NAVWAR sensing.</p> <p><i>FY 2025 to FY 2026 Increase/Decrease Statement:</i> This is not a new start. FY 2026 funding transferred from PE 0603463A (Network C3I Advanced Technology) / Project AV8 (Navigation Warfare (NAVWAR) Advanced Technology). FY 2026 funding increase due to planned focus on required needs and technologies for final validation in operational field demonstrations.</p>			
Accomplishments/Planned Programs Subtotals		-	5.968
C. Other Program Funding Summary (\$ in Millions)			
N/A			
Remarks			
D. Acquisition Strategy			
N/A			

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army										Date: June 2025		
Appropriation/Budget Activity 2040 / 3					R-1 Program Element (Number/Name) PE 0603275A / <i>Electronic Warfare Advanced Technology</i>				Project (Number/Name) A75 / <i>Counter C3 Advanced Technology</i>			
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
A75: <i>Counter C3 Advanced Technology</i>	-	-	-	9.669	-	9.669	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		
Note This is not a new start and is a realignment from PE 0603463A (Network C3I Advanced Technology) / Project AM7 (Modular RF Communications Advanced Technology). A. Mission Description and Budget Item Justification This Project matures developed techniques, methods, and standards to optimally broadcast data among available radio frequency (RF) and networking technologies in an EW contested environment. This Project will predict that a change in the network is needed and automatically make that change (transport, waveform mode, routing) prior to the network failing or being degraded by adversarial CEMA operations. This Project provides a resilient transport agnostic network through the employment of electronic protection and support techniques that monitor, assess, and adapt the network topology in the presence of enemy EW effects. The cited work is consistent with the Under Secretary of Defense for Research and Engineering priority focus areas and the Army modernization strategy. Work in this Project is performed by the Command, Control, Computers, Communications, Cyber, Intelligence, Surveillance, and Reconnaissance (C5ISR) Center. B. Accomplishments/Planned Programs (\$ in Millions)												
Title: Predictive Intelligent Networking Adv Tech Description: This effort matures and demonstrates methods to enable the tactical network with artificial intelligence (AI) to autonomously identify, learn, predict, and react to changes in network operating conditions and threats to ensure end-to-end network resiliency against adversarial AI-driven electronic warfare (EW), and cyber-attacks against the network. FY 2026 Plans: Will mature suitable solutions to enable Automated Primary, Alternate, Contingency, and Emergency (PACE) technologies with predictive algorithms in support of dynamic adaptations to changing environment; leverage prediction algorithms from various feeds (i.e. mobility prediction, cyber threat detection, near real-time radio frequency (RF)/EW sensing) and provide most appropriate course of action (CoA) recommendations; implement effects through existing Automated PACE technologies to ensure resilient network connectivity and uninterrupted mission; provide a microservices based framework with a modular approach to allow for autonomous dynamic configuration of network and communications components; leverage predictive analytics of historical and Electronic Support (ES) information to allow for the network to proactively reconfigure; demonstrate									FY 2024	FY 2025	FY 2026	
									-	-	9.669	

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army		Date: June 2025	
Appropriation/Budget Activity 2040 / 3	R-1 Program Element (Number/Name) PE 0603275A / <i>Electronic Warfare Advanced Technology</i>	Project (Number/Name) A75 / <i>Counter C3 Advanced Technology</i>	
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2024	FY 2025
<p>predictive modules as subcomponents for various modalities (mobility, RF spectrum, cyber, etc.) in a hardware-in-the-loop laboratory environment and field exercises.</p> <p><i>FY 2025 to FY 2026 Increase/Decrease Statement:</i> This is not a new start. FY 2026 funding transferred from PE 0603463A (Network C3I Advanced Technology) / Project AM7 (Modular RF Communications Advanced Technology). FY 2026 funding increase reflects partial transition and realignment from Program Element (PE) 0602146A (Network C3I Technology) / Project AM6 (Modular RF Communications Technology) to transition the effort from a research and development phase to maturity of proof-of-concept technologies beginning with various lab-based and field-based demonstrations along with Solider Touchpoints as a continuous feedback loop.</p>			
Accomplishments/Planned Programs Subtotals		-	-
C. Other Program Funding Summary (\$ in Millions) N/A			
Remarks			
D. Acquisition Strategy N/A			

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army										Date: June 2025		
Appropriation/Budget Activity 2040 / 3					R-1 Program Element (Number/Name) PE 0603275A / <i>Electronic Warfare Advanced Technology</i>				Project (Number/Name) A76 / <i>CEMA Sensing Advanced Technology</i>			
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
A76: <i>CEMA Sensing Advanced Technology</i>	-	-	-	3.146	-	3.146	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note

This is not a new start and is a realignment from PE 0603463A (Network C3I Advanced Technology) / Project AO1 (UNT - Every Receiver is a Sensor Advanced Tech).

A. Mission Description and Budget Item Justification

This Project matures and demonstrates algorithms, techniques, and methodologies to passively and actively sense, to include optimized use of available resources, the Electromagnetic Spectrum (EMS) associated with all types of adversarial cyber and electromagnetic activities (CEMA) to gain situational awareness, detect threats, and enable effective response. This Project also optimizes real-time radio frequency mapping of the tactical environment in support of network operation and decision making.

Work in this Project complements Program Element (PE) 0602275A (Electronic Warfare Applied Research) / Project A66 (CEMA Sensing Technology).

The cited work is consistent with the Under Secretary of Defense for Research and Engineering priority focus areas and the Army modernization strategy.

Work in this Project is performed by the Command, Control, Computers, Communications, Cyber, Intelligence, Surveillance, and Reconnaissance (C5ISR) Center.

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2024	FY 2025	FY 2026
Title: Multi-function Resourcing for CEMA Advanced Technology	-	-	3.146
Description: This effort matures and demonstrates technologies and methodologies to overcome the interference experienced in current co- located, multifunction systems that hinders the efficient, effective execution of simultaneous Electronic Warfare (EW), signals intelligence and cyber missions. This effort will improve resourcing, scheduling and collaboration so that sensor systems can self- optimize, identify spectrum conflicts, and fully utilize all available assets to enable simultaneous use of the spectrum on a threat dense battlefield.			
FY 2026 Plans: Will implement advanced scheduler and interference mitigation technology on multifunction hardware chassis to dynamically activate resources within the chassis to demonstrate multi-function mission requirements in a resource constrained environment.			
FY 2025 to FY 2026 Increase/Decrease Statement:			

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army		Date: June 2025		
Appropriation/Budget Activity 2040 / 3		R-1 Program Element (Number/Name) PE 0603275A / <i>Electronic Warfare Advanced Technology</i>		Project (Number/Name) A76 / <i>CEMA Sensing Advanced Technology</i>
B. Accomplishments/Planned Programs (\$ in Millions)				
This is not a new start. FY 2026 funding transferred from PE 0603463A (Network C3I Advanced Technology) / Project AO1 (UNT - Every Receiver is a Sensor Advanced Tech). FY 2026 funding increase due to an economic adjustment.		FY 2024	FY 2025	FY 2026
Accomplishments/Planned Programs Subtotals		-	-	3.146
C. Other Program Funding Summary (\$ in Millions)				
N/A				
Remarks				
D. Acquisition Strategy				
N/A				

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army										Date: June 2025		
Appropriation/Budget Activity 2040 / 3					R-1 Program Element (Number/Name) PE 0603275A / <i>Electronic Warfare Advanced Technology</i>				Project (Number/Name) A77 / <i>EW for Maneuver Operations (EMO) Adv Tech</i>			
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
A77: <i>EW for Maneuver Operations (EMO) Adv Tech</i>	-	-	-	12.247	-	12.247	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note

This is not a new start and is a realignment from PE 0603463A (Network C3I Advanced Technology) / Project:

- (1) AN4 (Non Traditional Waveforms Advanced Technology)
- (2) AN8 (COE - Every Receiver is a Sensor Advanced Tech)
- (3) AO7 (EW for Maneuver Operations (EMO) Adv Tech)
- (4) CJ8 (Assured PNT Communications Advanced Tech)

A. Mission Description and Budget Item Justification

This Project matures and demonstrates cutting-edge technologies for Electronic Warfare (EW) applications, non-kinetic survivability, Enhanced lethality and Counter adversary intelligence Sensing, reconnaissance and targeting (ISR&T), and emerging concepts of employment in the increasingly contested and congested electromagnetic environment, with the goal of enhancing Army survivability/lethality and C-ISR&T capabilities through Electronic Attack (EA), Electronic Support (ES), and Electronic Protection (EP) with high operational realism for current and future operational environments.

Work in this Project complements Program Element (PE) 0602275A (Electronic Warfare Applied Research) / Project A67 (Electronic Warfare Technology).

The cited work is consistent with the Under Secretary of Defense for Research and Engineering priority focus areas and the Army modernization strategy.

Work in this Project is performed by the United States Army Space and Missile Defense Technical Center and Command, Control, Computers, Communications, Cyber, Intelligence, Surveillance, and Reconnaissance (C5ISR) Center.

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2024	FY 2025	FY 2026
Title: EW Counter Adversary ISR&T Capabilities Advanced Technology	-	-	5.812
Description: This effort matures and demonstrates capabilities to degrade the adversary's ability to leverage advanced target development, tracking, and kinetic targeting and engagement capabilities, degrading/delaying their ability to rapidly respond to blue force actions. This effort will demonstrate how such capabilities can be leveraged to improve the effectiveness of Army kinetic fires by degrading adversary detection and active response defensive capabilities			
FY 2026 Plans:			

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army			Date: June 2025		
Appropriation/Budget Activity 2040 / 3		R-1 Program Element (Number/Name) PE 0603275A / <i>Electronic Warfare Advanced Technology</i>		Project (Number/Name) A77 / <i>EW for Maneuver Operations (EMO) Adv Tech</i>	
B. Accomplishments/Planned Programs (\$ in Millions)			FY 2024	FY 2025	FY 2026
<p>Will conduct vulnerability analysis of adversarial ISR sensors and supporting integrated defense systems for adversary high value platforms; establish a modeling and demonstration environment, inclusive of hardware-in-the-loop infrastructure, that will be used to measure countermeasure performance and associated improvements throughout the effort; validate preliminary countermeasures to establish performance and effective baseline.</p> <p>FY 2025 to FY 2026 Increase/Decrease Statement: This is not a new start. FY 2026 funding transferred from PE 0603463A (Network C3I Advanced Technology) / Project AO7 (EW for Maneuver Operations (EMO) Adv Tech) and Project AN8 (COE - Every Receiver is a Sensor Advanced Tech). FY 2026 funding increase reflects initiation of Advanced Capabilities for Counter Adversarial ISR.</p>					
<p>Title: Spectrum Superstorm Adv Tech</p> <p>Description: This effort matures technology with an emphasis on adversary counter geolocation capabilities. This effort provides the capability to obscure the electromagnetic environment in ways that will disrupt, confuse and overwhelm adversary electronic support capabilities resulting in a significant degradation to find and fix targets based on their RF signature. This capability has applications across adversary systems operating across multiple operational domains and echelon.</p> <p>FY 2026 Plans: Will implement technical effect techniques on suitable hardware to demonstrate efficacy of capability in a realistic operational environment; demonstrate a limited set of capabilities in a lab-based environment and evolve these capabilities to incorporate additional levels of complexity and realism through field-based trials to ensure credible patterns of life</p> <p>FY 2025 to FY 2026 Increase/Decrease Statement: This is not a new start. FY 2026 funding transferred from PE 0603463A (Network C3I Advanced Technology) / Project AN4 (Non Traditional Waveforms Advanced Technology). FY 2026 funding decrease due to efficiencies associated with vendor investments in this and other related technology areas.</p>			-	-	3.092
<p>Title: HAYFINS</p> <p>Description: This effort matures and demonstrates a ground-based system supporting Space and Autonomy Modernization priorities by fusing protection technologies with legacy systems that provide multi-modal capabilities to the Army to enhance freedom of maneuver supporting Multi-Domain Operations (MDO). This provides a tailored selection and application of multilayered active and passive measures.</p> <p>FY 2026 Plans:</p>			-	-	3.343

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army		Date: June 2025		
Appropriation/Budget Activity 2040 / 3	R-1 Program Element (Number/Name) PE 0603275A / <i>Electronic Warfare Advanced Technology</i>	Project (Number/Name) A77 / <i>EW for Maneuver Operations (EMO) Adv Tech</i>		
B. Accomplishments/Planned Programs (\$ in Millions) Will validate integrated prototype system in an operational environment through a technical demonstration and Military Utility Assessment (MUA); update threat analysis, Modeling and Simulation, and system design for follow-on capabilities. <i>FY 2025 to FY 2026 Increase/Decrease Statement:</i> This is not a new start. FY 2026 funding transferred from PE 0603463A (Network C3I Advanced Technology) / Project CJ8 (Assured PNT Communications Advanced Tech). FY 2026 funding decrease reflects the planned milestones to mature and demonstrate prototype.		FY 2024	FY 2025	FY 2026
Accomplishments/Planned Programs Subtotals		-	-	12.247
C. Other Program Funding Summary (\$ in Millions) N/A Remarks D. Acquisition Strategy N/A				

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army										Date: June 2025		
Appropriation/Budget Activity 2040 / 3					R-1 Program Element (Number/Name) PE 0603275A / <i>Electronic Warfare Advanced Technology</i>				Project (Number/Name) A78 / <i>Sensor Electronic Support Adv Tech</i>			
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
A78: <i>Sensor Electronic Support Adv Tech</i>	-	-	-	11.327	-	11.327	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note

This is not a new start and is a realignment from:

- (1) PE 0603465A (Future Vertical Lift Advanced Technology) / Project CG1 (Holistic Team Survivability Adv Tech)
- (2) PE 0603466A (Air and Missile Defense Advanced Technology) / Project DB3 (Radar Survivability through Dis Sensing Adv Tech)

A. Mission Description and Budget Item Justification

This Project matures and demonstrates critical EW and radar capability enhancements to defeat advanced Air and Missile threats and protect Army maneuver forces and critical assets. Radar enhancements are required for advanced Electronic Protection (EP) techniques against advanced jammers, electronic Combat Identification (CID), and resource optimization across the threat spectrum while retaining 360-degree coverage capability. Technology maturation in the project includes providing capabilities for: dispersed multi-static operation, classifying/tracking emerging threats and high-volume threats; adaptive digital beam forming to enable resource efficiency, performance in a dynamic clutter environment and enhanced survivability in a contested battlespace; and multi-modal tracking and additional discrimination models to support diverse and emerging threats, such as swarms and guided munitions. Multiple soldier touchpoints and demonstrations of developed technology to autonomously synchronize multiple radars across a distributed battlefield in the presence of countermeasures and the denial of Global Positioning System (GPS) will be performed in lab and field environments.

This Project also matures and demonstrates EW technologies for increased Future Vertical Lift (FVL) Family of Systems Survivability (FoS) in an advanced integrated air defense systems environment through a multi-layered approach. The approach focuses on maturing and demonstrating EW technologies for state of the art agile Launched Effect (LE) payloads for Electromagnetic Attack (EA) and sensing to provide protection of ground and air formations from a variety of threats and enable maneuver and lethality.

Work in this Project complements Program Element (PE) 0601275A (Electronic Warfare Basic Research) / Project A61 (Sensing and Electromagnetics) and PE 0602275A (Electronic Warfare Applied Research) / Project A70 (Radar Survivability through Dis Sensing Tech).

The cited work is consistent with the Under Secretary of Defense for Research and Engineering priority focus areas and the Army modernization strategy.

Work in this Project is performed by the Aviation & Missile Center (AvMC) and Command, Control, Communication, Computers, Cyber, Intelligence, Surveillance and Reconnaissance (C5ISR) Center.

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army		Date: June 2025	
Appropriation/Budget Activity 2040 / 3	R-1 Program Element (Number/Name) PE 0603275A / <i>Electronic Warfare Advance d Technology</i>	Project (Number/Name) A78 / <i>Sensor Electronic Support Adv Tech</i>	
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2024	FY 2025
Title: Radar Survivability through Distributed Sensing (RSDS) Adv Tech Description: Matures and demonstrates critical radar capability enhancements to defeat advanced Air and Missile threats and protect Army maneuver forces and critical assets. FY 2026 Plans: Will mature high fidelity modeling and simulation (M&S) environments for demonstration of multi-static and distributed sensing; complete and document algorithms for waveforms and signal processing for multi-static capability; demonstrate multi-static software capability using surrogate radar systems in M&S environment; demonstrate bi-static capability using surrogate radar hardware. FY 2025 to FY 2026 Increase/Decrease Statement: This is not a new start. FY 2026 funding transferred from PE 0603466A (Air and Missile Defense Advanced Technology) / Project DB3 (Radar Survivability through Dis Sensing Adv Tech). FY 2026 funding increase to support demonstrations of surrogate radar hardware.		-	-
Title: Advanced Radio Frequency Countermeasures Description: This effort matures and demonstrates adaptive sensor and EW countermeasure technologies that provide platform protection against guided threats, as well as enable maneuver and lethality. It develops software and hardware to increase probability of detection and defeat of threats to aviation platforms using modeling and simulation (M&S), hardware in the loop (HIL) assessment, and field events. It provides integrated software and sensor technologies to counter the characteristics of advanced and agile threats. FY 2026 Plans: Will optimize technique description framework and embed into payload for detection and defeat of more challenging threats; demonstrate radio frequency (RF) payload with improved performance and range against a broad threat list in a relevant environment. The specific threats will be finalized in consultation with EW stakeholders. FY 2025 to FY 2026 Increase/Decrease Statement: This is not a new start. FY 2026 funding transferred from PE 0603465A (Future Vertical Lift Advanced Technology) / Project CG1 (Holistic Team Survivability Adv Tech). FY 2026 funding decrease reflects adjustments in scope of RF Countermeasures.		-	-
Accomplishments/Planned Programs Subtotals		-	-
		11.327	

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army		Date: June 2025
Appropriation/Budget Activity 2040 / 3	R-1 Program Element (Number/Name) PE 0603275A / <i>Electronic Warfare Advanced Technology</i>	Project (Number/Name) A78 / <i>Sensor Electronic Support Adv Tech</i>
C. Other Program Funding Summary (\$ in Millions) N/A		
Remarks		
D. Acquisition Strategy N/A		

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Army **Date:** June 2025

Appropriation/Budget Activity 2040: <i>Research, Development, Test & Evaluation, Army / BA 3: Advanced Technology Development (ATD)</i>					R-1 Program Element (Number/Name) PE 0603276A / <i>Electronic Warfare Cyber Advanced Technology</i>							
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
Total Program Element	-	-	-	15.254	-	15.254	-	-	-	-	-	-
A80: <i>Autonomous Cyber Advanced Technology</i>	-	-	-	15.254	-	15.254	-	-	-	-	-	-

Note

This is not a new start. Electronic Warfare Cyber Advanced Technology is a part of the Department of Defense Capability Based (Agile) Funding pilot, which provides enhanced capabilities by fostering innovation and accelerated deployment of promising technology.

This effort is a realignment from:

- (1) Program Element (PE) 0603457A (C3I Cyber Advanced Development) / Project 6CY (Autonomous Cyber Advanced Technology)
- (2) PE 0603457A (C3I Cyber Advanced Development) / Project 9CY (Network Access and Effects Advanced Technology).

A. Mission Description and Budget Item Justification

This Program Element (PE) matures and demonstrates architectures, technologies, techniques, components, and tools to enhance Cyber and Electromagnetic Activities (CEMA) for Multi-Domain Joint Operations in tactical environments. These efforts aim to counter the adversary's Command, Control, Computing, Communications, Cyber, Intelligence, Surveillance, and Targeting (C-C5ISR&T) capabilities and plan, target, execute Cyber effects through the employment of non-traditional access and effect vectors against adversarial systems, communication networks, and decision centers to reduce the adversary's ability to execute command and control of its forces. Additionally, these efforts will protect tactical wired and wireless networks against modern cyber-attacks, focusing on configuration, operation, monitoring, data integrity, and defense in bandwidth constrained tactical environments while reducing the operator workload required to conduct these functions.

This PE will mature and demonstrate key technologies that create windows of opportunity to provide significant operational advantage over adversaries. It will increase unit survivability and maneuverability and enhance the employment of non-kinetic effects in highly contested and congested electromagnetic environments.

Work in this PE complements PE 0602376A (Electronic Warfare Cyber Applied Research).

The cited research is consistent with the Under Secretary of Defense for Research and Engineering priority focus areas and the Army modernization strategy.

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Army					Date: June 2025
Appropriation/Budget Activity 2040: Research, Development, Test & Evaluation, Army / BA 3: Advanced Technology Development (ATD)			R-1 Program Element (Number/Name) PE 0603276A / Electronic Warfare Cyber Advanced Technology		
B. Program Change Summary (\$ in Millions)	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total
Previous President's Budget	0.000	0.000	0.000	-	0.000
Current President's Budget	0.000	0.000	15.254	-	15.254
Total Adjustments	0.000	0.000	15.254	-	15.254
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Adjustments to Budget Years	-	-	15.254	-	15.254
<u>Change Summary Explanation</u> This is not a new start. Electronic Warfare Cyber Advanced Technology is a part of the Department of Defense Capability Based (Agile) Funding pilot, which provides enhanced capabilities by fostering innovation and accelerated deployment of promising technology. Funding increase in FY 2026 reflects realignment from PE 0603457A (C3I Cyber Advanced Development) / Project 6CY (Autonomous Cyber Advanced Technology) and Project 9CY (Network Access and Effects Advanced Technology).					

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army										Date: June 2025		
Appropriation/Budget Activity 2040 / 3					R-1 Program Element (Number/Name) PE 0603276A / <i>Electronic Warfare Cyber Advanced Technology</i>				Project (Number/Name) A80 / <i>Autonomous Cyber Advanced Technology</i>			
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
A80: <i>Autonomous Cyber Advanced Technology</i>	-	-	-	15.254	-	15.254	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note

This is not a new start and is a realignment from PE 0603457A (C3I Cyber Advanced Development) / Project 6CY (Autonomous Cyber Advanced Technology) and 9CY (Network Access and Effects Advanced Technology).

A. Mission Description and Budget Item Justification

This project demonstrates defense capabilities against adversarial attacks using artificial intelligence (AI) and machine learning (ML) to evade detection and deceive the automated technologies supporting the network's defensive cyber posture.. This Project will provide defensive cyber operations (DCO) software tools for multi-domain operations and enable tactical network cyber defenders with machine learning (ML) and artificial intelligence (AI) capabilities.

This project matures and demonstrates RF-enabled cyber approaches to Disrupt, Deny, Degrade, Destroy and Manipulate (D4M) adversary C2ISR systems and capabilities. Furthermore, in full alignment with ARCYBER "reprogrammability" efforts, field-based exercises will focus on demonstrating new methodologies for the development of EW/OCO effects that are more readily implemented, upgradable and portable across different Army platforms.

Work in this project complements Program Element (PE) 0602276A (Electronic Warfare Cyber Applied Research) / Project A79 (Autonomous Cyber Technology).

The cited work is consistent with the Under Secretary of Defense for Research and Engineering priority focus areas and the Army modernization strategy.

Work in this project is performed by the Command, Control, Computers, Communications, Cyber, Intelligence, Surveillance, and Reconnaissance (C5ISR) Center.

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2024	FY 2025	FY 2026
Title: Predictive Intelligent Networking - Cyber	-	-	3.571
Description: This effort matures and validates network micro-segmentation methods based on tactical network constraints that employ artificial intelligence (AI) based advanced zero trust security features to autonomously identify, learn, predict, and react to changes in network operating conditions, enables optimized resource quarantining and ensures end-to-end network resiliency against adversarial AI-driven electronic attacks (EA) and cyberattacks.			
FY 2026 Plans: Will mature subset of predictive algorithms that autonomously identify, learn, and react to changes in network/cyber threats to ensure end-to-end network communications resiliency against adversarial AI-driven cyberattacks; mature the use of artificial			

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army			Date: June 2025		
Appropriation/Budget Activity 2040 / 3		R-1 Program Element (Number/Name) PE 0603276A / <i>Electronic Warfare Cyber Advanced Technology</i>		Project (Number/Name) A80 / <i>Autonomous Cyber Advanced Technology</i>	
B. Accomplishments/Planned Programs (\$ in Millions)			FY 2024	FY 2025	FY 2026
intelligence and machine learning (AI/ML) to dynamically adjust micro-segmentation in response to cyber activities to harden and protect tactical networks. FY 2025 to FY 2026 Increase/Decrease Statement: This is not a new start. FY 2026 funding transferred from PE 0603457A (C3I Cyber Advanced Development) / Project 6CY (Autonomous Cyber Advanced Technology). FY 2026 funding increase to dynamically adjust responses to cyber attacks.					
Title: Tactical Hardening for Quantum Description: Enable faster migration from existing PKI algorithms to Post Quantum Cryptography (PQC) algorithms that are safe from compromise by quantum computing. Demonstrate advanced encryption algorithms to secure Army tactical networks against quantum computing threats. FY 2026 Plans: Will develop and demonstrate hybrid certificates with combinations of the National Institute of Standards and Technology (NIST) selected Post Quantum Cryptography (PQC) algorithms and demonstrate impacts on hardware tokens, such as smart cards; develop and demonstrate migration procedures to help implement PQC migration with the least disruption to system operation. FY 2025 to FY 2026 Increase/Decrease Statement: This is not a new start. FY 2026 funding transferred from PE 0603457A (C3I Cyber Advanced Development) / Project 6CY (Autonomous Cyber Advanced Technology). FY 2026 funding increase reflects increased demonstrations of algorithms and development of migration procedures.			-	-	5.754
Title: RF Enabled Offensive Effects Advanced Technology Description: Mature innovative methodologies for Disrupt, Deny, Degrade, Destroy and Manipulate (D4M) RF-enabled cyber effects from Army tactical systems that are in RF proximity to adversary threat C2ISR capabilities. Develop and demonstrate EW techniques for "just-in-time" capability reprogramming and greater portability of effects across all applicable Army systems. Demonstrates new technology concepts to counter adversary Intelligence Surveillance and Resonance (ISR) capabilities across multiple modalities FY 2026 Plans: Will mature and demonstrate OCO/RF-enabled access and effects against adversary priority targets of interest; demonstrate reprogrammability and portability of new EW effects across Army tactical EW platforms and systems; mature and demonstrate automation concepts that reduce OCO/RF-enabled mission time to execution. FY 2025 to FY 2026 Increase/Decrease Statement:			-	-	5.929

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army		Date: June 2025		
Appropriation/Budget Activity 2040 / 3	R-1 Program Element (Number/Name) PE 0603276A / <i>Electronic Warfare Cyber A dvanced Technology</i>	Project (Number/Name) A80 / <i>Autonomous Cyber Advanced Technology</i>		
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2024	FY 2025	FY 2026
This is not a new start. FY 2026 funding transferred from PE 0603457A (C3I Cyber Advanced Development) / Project 9CY (Network Access and Effects Advanced Technology). FY 2026 funding decrease represents completion of preliminary OCO/RF-enabled access and effects against adversary targets of interest.				
Accomplishments/Planned Programs Subtotals		-	-	15.254
C. Other Program Funding Summary (\$ in Millions)				
N/A				
Remarks				
D. Acquisition Strategy				
N/A				

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Army	Date: June 2025
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Appropriation/Budget Activity					R-1 Program Element (Number/Name)							
2040: Research, Development, Test & Evaluation, Army / BA 3: Advanced Technology Development (ATD)					PE 0603345A / Unmanned Aerial Systems Launched Effects Advanced Technology Development							
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
Total Program Element	-	-	-	13.898	-	13.898	-	-	-	-	-	-
A45: Air Launched Effects Advanced Technology	-	-	-	13.898	-	13.898	-	-	-	-	-	-

Note

This is not a new start.

A. Mission Description and Budget Item Justification

This Program Element (PE) matures and demonstrates uncrewed air vehicles and mission system technologies as well as advanced teaming capabilities to enable unmanned aerial system modernization. Emphasis is on developing aviation platform and mission system technologies to enhance uncrewed air vehicle combat and combat support operations for attack, reconnaissance, air assault, survivability, logistics, and command and control missions. The PE will fund civilian salaries for in-house researchers/scientists and program managers.

Work in this PE contributes to the Army Science and Technology (S&T) air systems portfolio and is fully coordinated with efforts in PE 0602148A (Future Verticle Lift Technology), PE 0602345A (Unmanned Aerial Systems Launched Effects Applied Research), and PE 0603043A (Air Platform Advanced Technology).

The cited work is consistent with the Under Secretary of Defense for Research and Engineering priority focus areas and the Army modernization strategy.

<u>B. Program Change Summary (\$ in Millions)</u>	<u>FY 2024</u>	<u>FY 2025</u>	<u>FY 2026 Base</u>	<u>FY 2026 OOC</u>	<u>FY 2026 Total</u>
Previous President's Budget	0.000	0.000	0.000	-	0.000
Current President's Budget	0.000	0.000	13.898	-	13.898
Total Adjustments	0.000	0.000	13.898	-	13.898
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Adjustments to Budget Years	-	-	13.898	-	13.898

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Army		Date: June 2025
Appropriation/Budget Activity 2040: Research, Development, Test & Evaluation, Army / BA 3: Advanced Technology Development (ATD)		R-1 Program Element (Number/Name) PE 0603345A / Unmanned Aerial Systems Launched Effects Advanced Technology Development
<p>Change Summary Explanation</p> <p>This is not a new start. Unmanned Aerial Systems Launched Effects Advanced Technology Development is a part of the Department of Defense Capability Based (Agile) Funding pilot, which provides enhanced capabilities by fostering innovation and accelerated deployment of promising technology. Funding increase in Fiscal Year (FY) 2026 from the previous PB to the current PB reflects realignment from Program Element (PE) 0603465A (Future Vertical Lift Advanced Technology) / Project AK8 (Air Launched Effects Advanced Technology).</p>		

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army										Date: June 2025		
Appropriation/Budget Activity 2040 / 3					R-1 Program Element (Number/Name) PE 0603345A / Unmanned Aerial Systems Launched Effects Advanced Technology Development				Project (Number/Name) A45 / Air Launched Effects Advanced Technology			
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
A45: Air Launched Effects Advanced Technology	-	-	-	13.898	-	13.898	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note

This is not a new start.

A. Mission Description and Budget Item Justification

This Project develops and demonstrates the ability to launch Launched Effects (LE) Unmanned Aircraft System (UAS) from Army manned or unmanned aircraft at tactical altitudes and from manned or unmanned ground platforms and to control the UAS from the cockpit or a crew station; and assesses the enabled capabilities and determine their relevance to current Army Aviation engagement and survivability portfolios.

Work in this Project is fully coordinated with Program Element (PE) 0602345A (Unmanned Aerial Systems Launched Effects Applied Research) / Project A42 (Air Launched Effects Technology).

The cited work is consistent with the Under Secretary of Defense for Research and Engineering Science and Technology focus areas and the Army modernization strategy.

Work in this Project is performed by the Aviation & Missile Center (AvMC).

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2024	FY 2025	FY 2026
Title: Versatile Launched Effects (VLE) Demonstration	-	-	13.898
Description: Mature, integrate and demonstrate attritable future unmanned aircraft system (FUAS) capabilities suitable for contested multi-domain operations in urban, urban-fringe, and littoral environments. Demonstrate UAS family of systems that can be organically carried and launched from aircraft and surface vehicles to Find, Fix, Target, Track, Engage, and Assess (F2T2EA) targets and threats to achieve overmatch in complex Joint All-Domain Operational environments and inform the System Specifications for the LE Program of Record.			
FY 2026 Plans:			

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army		Date: June 2025	
Appropriation/Budget Activity 2040 / 3	R-1 Program Element (Number/Name) PE 0603345A / <i>Unmanned Aerial Systems Launched Effects Advanced Technology Development</i>	Project (Number/Name) A45 / <i>Air Launched Effects Advanced Technology</i>	

B. Accomplishments/Planned Programs (\$ in Millions)	FY 2024	FY 2025	FY 2026
Will mature enhanced mission systems and system hardening efforts to align with LE A-CDD requirements; integrate and demonstrate initial modular air vehicle concepts that incorporate payloads and mission systems equipment for air and ground launched effects operations in long-range littoral and urban-fringe missions. <i>FY 2025 to FY 2026 Increase/Decrease Statement:</i> This is not a new start. Versatile Launched Effects (VLE) Demonstration is a part of the Department of Defense Capability Based (Agile) Funding pilot, which provides enhanced capabilities by fostering innovation and accelerated deployment of promising technology. Funding increase reflects realignment from Program Element (PE) 0603465A (Future Vertical Lift Advanced Technology) / Project AK8 (Air Launched Effects Advanced Technology).			
Accomplishments/Planned Programs Subtotals	-	-	13.898

C. Other Program Funding Summary (\$ in Millions) N/A
Remarks
D. Acquisition Strategy N/A

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Army **Date:** June 2025

Appropriation/Budget Activity 2040: Research, Development, Test & Evaluation, Army / BA 3: Advanced Technology Development (ATD)					R-1 Program Element (Number/Name) PE 0603386A / Biotechnology for Materials - Advanced Research							
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
Total Program Element	-	57.686	36.360	24.683	-	24.683	-	-	-	-	-	-
CP7: Biotechnology Demonstration and Evaluation	-	57.686	36.360	24.683	-	24.683	-	-	-	-	-	-

A. Mission Description and Budget Item Justification

This Program Element (PE) matures and demonstrates novel biotechnological methods, processes, and materials to enhance military supply chain resilience. The Army is responsible for centrally managing funding for Tri-Service Biotechnology for a Resilient Supply Chain (T-BRSC) efforts. T-BRSC leverages bio-industrial manufacturing to ensure critical domestic supply chain resilience for defense needs through domestic production of raw materials and critical products. The Army supports this Tri-Service effort under this PE with collaboration among sister Services and select allied partners to support a robust pipeline for biotechnology related manufacturing. Advanced research projects optimize and rapidly demonstrate future novel biotechnologies for disruptive breakthrough capabilities. This PE provides bio-engineered and biosynthetic materials to ensure domestic sourcing of critical products in the defense supply chain. Also under this PE, efforts mature and demonstrate rapid prototyping methods for rapid testing of bio-derived materials as well as optimize models for the design and bio-security of bio-engineered materials for defense applications.

This PE is coordinated with PE 0602386A (Biotechnology for Materials - Applied Research).

The cited research is consistent with the Under Secretary of Defense for Research and Engineering priority focus areas and the Army Modernization Strategy.

The FY 2026 request was reduced by \$0.128 million for civilian personnel to optimize the workforce in compliance with Executive Order 14210, "Implementing the President's Department of Government Efficiency Workforce Optimization Initiative."

B. Program Change Summary (\$ in Millions)	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total
Previous President's Budget	59.871	36.360	24.879	-	24.879
Current President's Budget	57.686	36.360	24.683	-	24.683
Total Adjustments	-2.185	0.000	-0.196	-	-0.196
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-2.185	-			
• Adjustments to Budget Years	-	-	-0.196	-	-0.196

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Army		Date: June 2025
Appropriation/Budget Activity 2040: Research, Development, Test & Evaluation, Army / BA 3: Advanced Technology Development (ATD)		R-1 Program Element (Number/Name) PE 0603386A / Biotechnology for Materials - Advanced Research
<div>Change Summary Explanation</div> <div>Funding decrease in FY26 from the previous PB is due to narrowing the portfolio down to the most promising technologies which will be moved into the next phases of development.</div>		

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army										Date: June 2025		
Appropriation/Budget Activity 2040 / 3					R-1 Program Element (Number/Name) PE 0603386A / <i>Biotechnology for Materials - Advanced Research</i>				Project (Number/Name) CP7 / <i>Biotechnology Demonstration and Evaluation</i>			
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
CP7: <i>Biotechnology Demonstration and Evaluation</i>	-	57.686	36.360	24.683	-	24.683	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This Project collaborates with Joint Service partners to mature, optimize, and demonstrate novel biotechnologies and related methods to establish a domestic resilient supply chain for defense needs. Advanced research validates and provides bio-derived, bio-functionalized, and bio-manufactured materials. This Project matures and demonstrates high-throughput screening and small-scale prototyping, enhances material performance, and exploits biotechnologies to provide drop-in replacements and materials with enhanced properties for defense applications. Areas of focus may include high-density, high-performance fuels for high-speed weapons, bio-based propellants, optical materials, and bio-derived systems that sense and respond to the presence of contaminants.

Work in this Project compliments Program Element (PE) 0602386A (Biotechnology for Materials - Applied Research) / CP6 (Foundational Biotechnology Design and Dev) and PE 0604386A (Biotechnology for Materials - Dem/Val) / CQ9 (Biotechnology for Materials - Dem/Val).

The cited work is consistent with the Under Secretary of Defense for Research and Engineering priority focus areas and the Army modernization strategy.

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2024	FY 2025	FY 2026
Title: Biosynthetic Material Demonstration	57.686	36.360	24.683
Description: This task matures and demonstrates novel and emerging biotechnologies related to bio-engineered or bio-manufactured materials to address vulnerabilities in the critical material supply chain for military needs.			
FY 2025 Plans: Will optimize the in-line analysis of fermentation products through biomaterial machine vision; improve the performance of high throughput strain screening and purification, downstream fermentation, bio-standards validation, and scale-up through biomaterial prototyping. Continue the scale-up production of biomolecules for use as energetic materials in hypersonic systems at volumes suitable for advanced prototyping and testing; validate the performance of these materials to support enhanced weapon systems range, increased speeds, potential reusability, and supply security on relevant platforms.			

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army			Date: June 2025		
Appropriation/Budget Activity 2040 / 3		R-1 Program Element (Number/Name) PE 0603386A / <i>Biotechnology for Materials - Advanced Research</i>		Project (Number/Name) CP7 / <i>Biotechnology Demonstration and Evaluation</i>	
B. Accomplishments/Planned Programs (\$ in Millions)			FY 2024	FY 2025	FY 2026
Continue to mature and demonstrate the bio-manufacturing process development for domestic production of high temperature-resistant bio-manufactured materials necessary for new hypersonic defense systems, unmanned aerial vehicles (UAVs) and fire-resistant casings for munitions.					
Demonstrate bio-based non-hazardous paint removal cleaning solvent for aircraft, ships, and ground vehicle systems.					
Demonstrate a bio-based capability to sense and detect heavy metal in water for point-of-need water safety/quality testing in denied combat operational areas.					
Continue the demonstration of bio-manufactured aviation and ground vehicle critical materials from in-theater waste streams; optimize the organic solution to provide fuel in theater to maintain a capable fighting force and persist inside actively contested spaces from a sustainable and secure production system.					
Continue the demonstration of reduced logistics through agile biocementation technology for expeditionary flight-line, taxiway, rotary aircraft pads, and base logistic foundations.					
Demonstrate bio-derived optical materials for agile laser protection of military goggles, vision blocks, and sensor systems.					
FY 2026 Plans:					
Will continue to optimize and the scale-up production of biomolecules for use as energetic materials in hypersonic systems at volumes suitable for advanced prototyping and testing; validate the performance of these materials to support enhanced weapon systems range, increased speeds, potential reusability, and supply security on relevant platforms. Will continue to mature and demonstrate the bio-manufacturing process development for domestic production of high temperature-resistant bio-manufactured materials necessary for new hypersonic defense systems and fire-resistant casings for munitions and energy storage. Will demonstrate the ability to capture rare earth elements using a bioderived extraction and separation process. Will mature and demonstrate the scale-up of bioderived energetic materials and test prototype kinetic energy and chemical energy munition system capabilities. Will continue to optimize the in-line analysis of fermentation products through biomaterial machine vision; improve the performance of high throughput strain screening and purification, downstream fermentation, bio-standards validation, and scale-up through biomaterial prototyping. Will demonstrate a biomanufacturing capability to enable bioderived cellulose at scale for diverse applications as energetic propellant ingredients and textile fibers. Will continue to demonstrate a bio-based capability to sense and detect heavy metal in water for point-of-need water safety/quality testing in denied combat operational areas. Will continue the demonstration of bio-manufactured aviation and ground vehicle critical materials from in-theater waste streams; optimize the organic solution to provide fuel in theater to maintain a capable fighting force and persist inside actively contested spaces from a sustainable and secure production system. Will continue the demonstration of reduced logistics through					

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army			Date: June 2025		
Appropriation/Budget Activity 2040 / 3		R-1 Program Element (Number/Name) PE 0603386A / Biotechnology for Materials - Advanced Research	Project (Number/Name) CP7 / Biotechnology Demonstration and Evaluation		
B. Accomplishments/Planned Programs (\$ in Millions)			FY 2024	FY 2025	FY 2026
agile bio cementation technology for expeditionary flight-line, taxiway, rotary aircraft pads, and base logistic foundations. Will demonstrate bio-derived optical materials for agile laser protection of military goggles, vision blocks, and sensor systems. Will prototype and test bioderived non-lethal vessel stopping technology to aid in threat vessel interdiction.					
FY 2025 to FY 2026 Increase/Decrease Statement: Funding in FY26 is decreased due to the T-BRSC Project Management Office (PMO) conducting technology down selections, narrowing the portfolio down to the most promising technologies which will be moved into the next phases of development.					
Accomplishments/Planned Programs Subtotals			57.686	36.360	24.683
C. Other Program Funding Summary (\$ in Millions)					
N/A					
Remarks					
D. Acquisition Strategy					
N/A					

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Army **Date:** June 2025

Appropriation/Budget Activity 2040: Research, Development, Test & Evaluation, Army / BA 3: Advanced Technology Development (ATD)					R-1 Program Element (Number/Name) PE 0603457A / C3I Cyber Advanced Development							
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
Total Program Element	-	28.275	39.616	3.329	-	3.329	-	-	-	-	-	-
6CY: Autonomous Cyber Advanced Technology	-	7.328	5.848	-	-	-	-	-	-	-	-	-
8CY: Information Trust Advanced Technology	-	11.187	24.188	3.329	-	3.329	-	-	-	-	-	-
9CY: Network Access and Effects Advanced Technology	-	9.760	9.580	-	-	-	-	-	-	-	-	-

A. Mission Description and Budget Item Justification

This Program Element (PE) matures and demonstrates technologies for offensive and defensive cyber operations in tactical environments. Projects optimize devices, techniques, services, software and algorithms to enable cyber situational understanding and Cyber Electromagnetic Activities (CEMA). For offensive cyber, efforts demonstrate integrated electronic attack (EA) and CEMA hardware and software to execute force protection (FP), EA, electronic surveillance (ES), signals intelligence (SIGINT), electronic warfare (EW) and cyber missions in a dynamic, distributed and coordinated fashion. For defensive cyber, efforts demonstrate hardware and software to protect tactical wired and wireless networks against modern cyber attacks and focuses on configuration, operation, monitoring, data integrity, and defense in bandwidth constrained tactical environments while reducing the operator workload required to conduct these functions.

This PE directly supports the Network Army Modernization Priority.

The cited research is consistent with the Under Secretary of Defense for Research and Engineering priority focus areas and the Army modernization strategy.

B. Program Change Summary (\$ in Millions)	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total
Previous President's Budget	28.847	19.616	21.377	-	21.377
Current President's Budget	28.275	39.616	3.329	-	3.329
Total Adjustments	-0.572	20.000	-18.048	-	-18.048
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	20.000			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-0.572	-			
• SBIR/STTR Transfer	-	-			
• Adjustments to Budget Years	-	-	-18.048	-	-18.048

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Army		Date: June 2025	
Appropriation/Budget Activity 2040: Research, Development, Test & Evaluation, Army / BA 3: Advanced Technology Development (ATD)		R-1 Program Element (Number/Name) PE 0603457A / C3I Cyber Advanced Development	
Congressional Add Details (\$ in Millions, and Includes General Reductions)		FY 2024	FY 2025
Project: 8CY: Information Trust Advanced Technology			
Congressional Add: High bandwidth cryptomodule enhancements & certification		-	20.000
Congressional Add Subtotals for Project: 8CY		-	20.000
Congressional Add Totals for all Projects		-	20.000
Change Summary Explanation Funding decrease in Fiscal Year (FY) 2026 from the previous PB to the current PB reflects realignment to Program Element (PE) 0602146A (Network C3I Technology) / Project AN7 (COE - Every Receiver is a Sensor), and PE 0603463A (Network C3I Advanced Technology) / Project AO7 EW for Maneuver Operations Advanced Technology in support of Army priorities in Electronic Warfare and Micro sensing.			

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army										Date: June 2025		
Appropriation/Budget Activity 2040 / 3					R-1 Program Element (Number/Name) PE 0603457A / C3I Cyber Advanced Development				Project (Number/Name) 6CY / Autonomous Cyber Advanced Technology			
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
6CY: Autonomous Cyber Advanced Technology	-	7.328	5.848	-	-	-	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		
A. Mission Description and Budget Item Justification												
This Project demonstrates defensive effects to adversarial use of artificial intelligence (AI) and machine learning (ML) to avoid detection and deceive our automated technologies driving the network decisions. This Project will provide defensive cyber operations (DCO) software capabilities for multi-domain operations and enable tactical network cyber defenders with machine learning (ML) and artificial intelligence (AI) capabilities.												
Work in this Project complements Program Element (PE) 0602213A (C3I Applied Cyber) / Project CY6 (Autonomous Cyber Technology).												
The cited work is consistent with the Under Secretary of Defense for Research and Engineering priority focus areas and the Army modernization strategy.												
Work in this Project is performed by the Command, Control, Computers, Communications, Cyber, Intelligence, Surveillance, and Reconnaissance (C5ISR) Center.												
B. Accomplishments/Planned Programs (\$ in Millions)										FY 2024	FY 2025	FY 2026
Title: Autonomous Cyber										7.328	-	-
Description: This effort develops proof-of-concept sensors that can adapt to and autonomously react to adversary cyber-attack and develop a cyber response course of action decision aid for cyber defenders to validate suitability of actions and to speed response decisions.												
Title: Predictive Intelligent Networking - Cyber										-	2.020	-
Description: This effort matures and validates network micro-segmentation methods based on tactical network constraints that employ artificial intelligence (AI) based advanced zero trust security features to autonomously identify, learn, predict, and react to changes in network operating conditions, enables optimized resource quarantining and ensures end-to-end network resiliency against adversarial AI-driven electronic attacks (EA), electronic warfare (EW), and cyberattacks.												
FY 2025 Plans:												
Will mature various network micro-segmentation design patterns, based on the current Department of Defense (DoD) Zero Trust Reference Architecture, to determine lowest viable level for tactical networks.												
FY 2025 to FY 2026 Increase/Decrease Statement:												

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army		Date: June 2025		
Appropriation/Budget Activity 2040 / 3	R-1 Program Element (Number/Name) PE 0603457A / C3I Cyber Advanced Development	Project (Number/Name) 6CY / Autonomous Cyber Advanced Technology		
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2024	FY 2025	FY 2026
Funding decrease reflects realignment to Program Element (PE) 0603276A (Electronic Warfare Cyber Advanced Technology) / Project A80 (Autonomous Cyber Advanced Technology) as a part of the Department of Defense Capability Based (Agile) Funding pilot, which provides enhanced capabilities by fostering innovation and accelerated deployment of promising technology.				
<p>Title: Network Obscuration and Deception</p> <p>Description: Mature and demonstrate software based cyber obscuration technologies; for use by Cyber Protection Teams (CPTs) and other cyber defenders in enterprise and tactical environments, utilizing planned Garrison and Tactical defensive Cyber Operations (DCO) Platforms; that imitate/mask networks, systems, hosts, users and files to distract/disrupt cyber attackers.</p> <p>FY 2025 Plans: Will mature and demonstrate first iteration of machine learning (ML) based moderate fidelity cyber obscuration capabilities positioned in advance of mission execution that can be remotely enabled as needed.</p> <p>FY 2025 to FY 2026 Increase/Decrease Statement: Funding decrease reflects realignment to Program Element (PE) 0603276A (Electronic Warfare Cyber Advanced Technology) / Project A80 (Autonomous Cyber Advanced Technology) as a part of the Department of Defense Capability Based (Agile) Funding pilot, which provides enhanced capabilities by fostering innovation and accelerated deployment of promising technology.</p>		-	1.539	-
<p>Title: Tactical Hardening for Quantum</p> <p>Description: Enable faster migration from existing PKI algorithms to Post Quantum Cryptography (PQC) algorithms that are safe from compromise by quantum computing. Demonstrate advanced encryption algorithms to secure Army tactical networks against quantum computing threats.</p> <p>FY 2025 Plans: Will assess hybrid certificates with combinations of the conventional algorithms and the NIST selected Post Quantum Cryptography (PQC) algorithms; evaluate advancements in state-of-the-art technologies, standards, and solutions identify where conventional crypto is used, identify migration strategies and develop migration procedures to help implement PQC migration with the least disruption to system operation.</p> <p>FY 2025 to FY 2026 Increase/Decrease Statement: Funding decrease reflects realignment to Program Element (PE) 0603276A (Electronic Warfare Cyber Advanced Technology) / Project A80 (Autonomous Cyber Advanced Technology) as a part of the Department of Defense Capability Based (Agile) Funding pilot, which provides enhanced capabilities by fostering innovation and accelerated deployment of promising technology.</p>		-	2.289	-
Accomplishments/Planned Programs Subtotals		7.328	5.848	-

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army		Date: June 2025
Appropriation/Budget Activity 2040 / 3	R-1 Program Element (Number/Name) PE 0603457A / C3I Cyber Advanced Development	Project (Number/Name) 6CY / Autonomous Cyber Advanced Technology
C. Other Program Funding Summary (\$ in Millions) N/A		
Remarks		
D. Acquisition Strategy N/A		

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army										Date: June 2025		
Appropriation/Budget Activity 2040 / 3					R-1 Program Element (Number/Name) PE 0603457A / C3I Cyber Advanced Development				Project (Number/Name) 8CY / Information Trust Advanced Technology			
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
8CY: Information Trust Advanced Technology	-	11.187	24.188	3.329	-	3.329	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This Project demonstrates enhanced awareness of the "provenance" / origin of data traversing the network from originator to consumer (e.g. sensor to shooter) in the presence of cyber-attacks, ensuring that the data can be trusted, has not been modified or manipulated, and has been authenticated for use in real-time decision making.

Work in this Project complements Program Element (PE) 0602213A (C3I Applied Cyber) / Project 2CY (Information Trust Technology).

The cited work is consistent with the Under Secretary of Defense for Research and Engineering priority focus areas and the Army modernization strategy.

Work in this Project is performed by the Command, Control, Computers, Communications, Cyber, Intelligence, Surveillance, and Reconnaissance (C5ISR) Center.

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2024	FY 2025	FY 2026
Title: Information Trust Advanced Technology	7.119	-	-
Description: This Project applies and demonstrates leading edge commercial technologies such as blockchain and machine learning to provide assurance that data has not been tampered with anywhere along the transmission chain from originator to consumer (e.g. sensor to shooter). This Project leverages automated algorithms to detect anomalies that may occur in the presence of cyber-attacks, such as an attempt to manipulate data traversing the network and alert decision makers.			
Title: PKI-Modernization/Dynamic Access Control for Tactical (DAC-T)	4.068	4.188	-
Description: This effort will mature and demonstrate cryptographic algorithms that address Program Manager (PM) Mission Command (MC) gap of native ability to support PKI digital signature and Online Certificate Status Protocol (OCSP) certificate validation for the Variable Message Format (VMF) standard MIL-STD-2045-47001D in Disconnected, Interrupted, and Low-bandwidth (DIL) Networks.			
Furthermore, the effort will also mature and demonstrate dynamic fine-grained access control that migrates the Army from a network-centric to data-centric access control in alignment with Advanced zero trust principles by enhancing, speeding up and automating account provisioning and access for people and non-Person entities (NPE) (e.g., sensors, devices, web services,			

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army			Date: June 2025		
Appropriation/Budget Activity 2040 / 3		R-1 Program Element (Number/Name) PE 0603457A / C3I Cyber Advanced Development		Project (Number/Name) 8CY / Information Trust Advanced Technology	
B. Accomplishments/Planned Programs (\$ in Millions)			FY 2024	FY 2025	FY 2026
etc.). This will significantly reduce the workload/ burden for the soldier and improve the networks security posture by enforcing least privilege & just-in-time network access.					
FY 2025 Plans: Will mature and demonstrate Crypto Library SW & MIL-STD-2045-47001 message parser; mature and demonstrate DAC-T Design & Technology data package and Application Programming Interface (API) for each ICAM service.					
FY 2025 to FY 2026 Increase/Decrease Statement: Funding decrease reflects completion of this effort.					
Title: Tactical Zero Trust			-	-	3.329
Description: This effort will mature and demonstrate concepts of Zero Trust that can be adapted to tactical network architectures including, non-person entities (NPE) (e.g., systems, applications, devices, robotic process automation (RPA) & services). It will mature and demonstrate an efficient data-in-use service to limit decryption and exfiltration of high value information. This effort will include graceful degradation of capability for Person/NPE access based on Indicators of Compromise (IoC). It will mature and demonstrate open standard methods to create playbooks while assuring safe parallel execution of such playbooks. This effort will mature and demonstrate a capability that performs adversarial assessments on machine learning models to make them more robust to adversarial manipulation.					
FY 2026 Plans: Will mature a dynamic, fine-grain access control management for Non-Person Entities (NPEs); mature a risk adaptive access control approach to adjust for graceful degradation of access based on Indicators of Compromise (IOCs); mature adversarial machine learning techniques.					
FY 2025 to FY 2026 Increase/Decrease Statement: In Fiscal Year (FY) 2026, this effort is a New Start. Funding realigned from Program Element (PE) 0603457A (C3I Cyber Advanced Development) / Project 6CY (Autonomous Cyber Advanced Technology) and from PE 0602213A (C3I Applied Cyber) / Project 2CY (Information Trust Technology) to continue advanced technology development and reduce applied research activities.					
Accomplishments/Planned Programs Subtotals			11.187	4.188	3.329
			FY 2024	FY 2025	
Congressional Add: High bandwidth cryptomodule enhancements & certification			-	20.000	

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army		Date: June 2025	
Appropriation/Budget Activity 2040 / 3	R-1 Program Element (Number/Name) PE 0603457A / C3I Cyber Advanced Development	Project (Number/Name) 8CY / Information Trust Advanced Technology	
		FY 2024	FY 2025
FY 2025 Plans: Congressional Interest Item funding provided for High bandwidth cryptomodule enhancements & certification			
Congressional Adds Subtotals		-	20.000
C. Other Program Funding Summary (\$ in Millions) N/A			
Remarks			
D. Acquisition Strategy N/A			

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army										Date: June 2025		
Appropriation/Budget Activity 2040 / 3					R-1 Program Element (Number/Name) PE 0603457A / C3I Cyber Advanced Development				Project (Number/Name) 9CY / Network Access and Effects Advanced Technology			
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
9CY: Network Access and Effects Advanced Technology	-	9.760	9.580	-	-	-	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		
A. Mission Description and Budget Item Justification												
This Project matures and demonstrates advanced mission management tools and workflows, to promote efficient selection and sequencing of effects to support the agile deployment and execution of Offensive Cyber Operations (OCO) / Radio Frequency (RF) Enabled capabilities in the face of ever-advancing and evolving cyber security standards and practices adopted by industry and our adversaries that impede our ability to maintain cyber freedom of maneuver in support of Multi-Domain Operations (MDO). This includes automated mission planning, staging methodologies, and tools to evaluate and compare various courses of action that are dynamically replicated within appropriate rapid response environment(s). This Project will enable both mission planners and operators to cognitively keep pace with the complexity of near-peer engagements within Multi-Domain Operations (MDO).												
Work in this Project complements Program Element (PE) 0602213A (C3I Applied Cyber) / Project 3CY (Network Access and Effects Technology).												
The cited work is consistent with the Under Secretary of Defense for Research and Engineering priority focus areas and the Army modernization strategy.												
Work in this Project is performed by the Command, Control, Computers, Communications, Cyber, Intelligence, Surveillance, and Reconnaissance (C5ISR) Center.												
B. Accomplishments/Planned Programs (\$ in Millions)									FY 2024	FY 2025	FY 2026	
Title: Network Exploitation Research and Development (NERD) Advanced Technology									9.760	9.580	-	
Description: This effort matures computer assisted/automated development of Offensive Cyber Operations (OCO)/Radio Frequency (RF) enabled effects against emerging and validated targets of interest (TOI) in conjunction with exploration of non-traditional attack vectors. Matures automated mission planning and staging methodologies and tools to evaluate and compare various courses of actions that are dynamically replicated within appropriate rapid response environment to enable both mission planner and operators to cognitively keep pace with the complexity of near-peer engagements within Multi-Domain Operations (MDO).												
FY 2025 Plans:												
Will mature and demonstrate OCO/RF-enabled access and effects against targets of interest, enabling the commander to hold targets at risks in support of mission objectives; validate computer-assisted development to expedite access and effect, and												

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army		Date: June 2025		
Appropriation/Budget Activity 2040 / 3	R-1 Program Element (Number/Name) PE 0603457A / C3I Cyber Advanced Development	Project (Number/Name) 9CY / Network Access and Effects Advanced Technology		
B. Accomplishments/Planned Programs (\$ in Millions) reduce OCO/RF mission timelines; optimize concepts that reduce OCO/RF-enabled mission time to readiness through firing solution automation capabilities. FY 2025 to FY 2026 Increase/Decrease Statement: Funding decrease represents completion of preliminary OCO/RF-enabled access and effects against adversary targets of interest. Funding realigned to Program Element (PE) 0603275A (Electronic Warfare Advanced Technology) / Project A77 (EW for Maneuver Operations (EMO) Adv Tech) and PE 0602146A (Network C3I Technology) / Project AN7 (COE - Every Receiver is a Sensor Technology).		FY 2024	FY 2025	FY 2026
Accomplishments/Planned Programs Subtotals		9.760	9.580	-
C. Other Program Funding Summary (\$ in Millions) N/A Remarks D. Acquisition Strategy N/A				

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Army	Date: June 2025
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Appropriation/Budget Activity 2040: Research, Development, Test & Evaluation, Army / BA 3: Advanced Technology Development (ATD)					R-1 Program Element (Number/Name) PE 0603461A / High Performance Computing Modernization Program							
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
Total Program Element	-	246.739	239.597	241.855	-	241.855	-	-	-	-	-	-
DS7: High Performance Computing Modernization Program	-	246.739	239.597	241.855	-	241.855	-	-	-	-	-	-

A. Mission Description and Budget Item Justification

The High Performance Computing Modernization Program (HPCMP) addresses the supercomputing requirements of Department of Defense (DoD) scientists and engineers by: (1) demonstrating and maturing the most advanced, leading-edge computational architectures while exploiting the resulting systems by employing complementary specialized expertise; (2) demonstrating and maturing the Defense Research and Engineering Network (DREN), which investigates, demonstrates, and matures leading-edge digital networking and security technologies to securely deliver computational capabilities to the distributed DoD Research, Development, Test, and Evaluation (RDTE) community; and (3) leveraging specialized expertise from DoD, other federal departments and agencies, industry, and academia to demonstrate and mature leading-edge software application codes. DoD Supercomputing Resource Centers (DSRCs) provide extensive computational capabilities to demonstrate and mature emerging technologies that address the supercomputing requirements of the DoD RDTE community in the areas of hardware, software, and programming environments. All HPCMP sites are interconnected to each other, the DoD High Performance Computing (HPC) RDTE community, and other major defense sites via the DREN, a research network which investigates, demonstrates, and matures (a) state-of-the-art digital networking technologies to ensure a robust distributed environment and (b) the most advanced digital security capabilities to protect the intellectual property of the DoD and its contract entities as they employ HPCMP capabilities. The HPCMP's software application effort (a) optimizes, enhances, demonstrates, and matures critical DoD physics-based and engineering software to allow scientists and engineers to execute calculations with precision and efficiency on leading-edge supercomputers, (b) demonstrates and matures immersive collaborative programming environments to improve science and engineering workflows, and (c) demonstrates and matures leading-edge computational technology from academia and industry. These synergistic activities collectively demonstrate and mature horizontal technologies that are exploited across the DoD RDTE community, ensuring the DoD maintains the most advanced research and development ecosystem in computationally-intensive modeling and design.

The research cited is consistent with the Under Secretary of Defense for Research and Engineering priority focus areas and the Army Modernization Strategy.

The FY 2026 request was reduced by \$0.104 million for Advisory and Assistance Services to promote efficiencies and advance the policies of the Administration in alignment with Executive Order 14222, "Implementing the President's Department of Government Efficiency Cost Efficiency Initiative."

The FY 2026 request was reduced by \$1.425 million for civilian personnel to optimize the workforce in compliance with Executive Order 14210, "Implementing the President's Department of Government Efficiency Workforce Optimization Initiative."

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Army				Date: June 2025	
Appropriation/Budget Activity		R-1 Program Element (Number/Name)			
2040: Research, Development, Test & Evaluation, Army I BA 3: Advanced Technology Development (ATD)		PE 0603461A I High Performance Computing Modernization Program			
B. Program Change Summary (\$ in Millions)	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total
Previous President's Budget	255.772	239.597	245.350	-	245.350
Current President's Budget	246.739	239.597	241.855	-	241.855
Total Adjustments	-9.033	0.000	-3.495	-	-3.495
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-9.033	-			
• Adjustments to Budget Years	-	-	-3.495	-	-3.495
Change Summary Explanation					
Funding increase in FY26 from the previous PB is due to leveraging high-end computing experts in the acquisition community to significantly impact acquisition and digital engineering efforts across the DoD.					

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army										Date: June 2025		
Appropriation/Budget Activity 2040 / 3					R-1 Program Element (Number/Name) PE 0603461A / High Performance Computing Modernization Program				Project (Number/Name) DS7 / High Performance Computing Modernization Program			
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
DS7: High Performance Computing Modernization Program	-	246.739	239.597	241.855	-	241.855	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The High Performance Computing Modernization Program (HPCMP) addresses the supercomputing requirements of Department of Defense (DoD) scientists and engineers by (1) demonstrating and maturing the most advanced, leading-edge computational architectures and exploiting the resulting systems by employing complementary specialized expertise; (2) demonstrating and maturing the Defense Research and Engineering Network (DREN) which investigates, demonstrates, and matures leading-edge digital networking and security technologies to securely deliver computational capabilities to the distributed DoD Research, Development, Test, and Evaluation (RDTE) and acquisition engineering communities; and (3) leveraging specialized expertise from DoD, other federal departments/agencies, industry, and academia to demonstrate and mature leading-edge software application codes. DoD Supercomputing Resource Centers (DSRCs) provide extensive computational capabilities and demonstrate and mature emerging technologies that address the supercomputing requirements of the DoD RDTE and acquisition engineering communities in the areas of hardware, software, and programming environments. HPCMP sites are interconnected to each other, the DoD High Performance Computing (HPC) RDTE community, and other major defense sites via DREN, a research network which investigates, demonstrates, and matures (a) state-of-the-art digital networking technologies to ensure a robust distributed environment and (b) the most advanced digital security capabilities to effectively protect the intellectual property of the DoD and its contract entities as they employ HPCMP advanced capabilities. The HPCMP's software application effort (a) optimizes, enhances, demonstrates, and matures critical DoD physics-based and engineering software to allow scientists and engineers to execute calculations with precision and efficiency on leading-edge supercomputers, (b) demonstrates and matures immersive collaborative programming environments to improve science and engineering workflows, and (c) demonstrates and matures leading-edge computational technology from academia and industry. These synergistic activities collectively demonstrate and mature horizontal technologies that are exploited throughout the DoD RDTE and acquisition engineering communities, ensuring the DoD maintains the most advanced research ecosystem in the areas of computationally-intensive modeling and design.

The research cited is consistent with the Under Secretary of Defense for Research and Engineering priority focus areas and the Army Modernization Strategy.

Work in this Project is performed by the United States Army Engineer Research and Development Center.

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2024	FY 2025	FY 2026
Title: Department of Defense Supercomputing Resource Centers	141.217	141.847	135.458
Description: The effort investigates, demonstrates, and matures general and special-purpose supercomputing environments that incorporate the most advanced, leading-edge computational architectures, distributed mass storage technologies, and data analysis methodologies; employs complementary specialized expertise to mature and exploit these environments; enables the			

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army			Date: June 2025		
Appropriation/Budget Activity 2040 / 3		R-1 Program Element (Number/Name) PE 0603461A / <i>High Performance Computing Modernization Program</i>		Project (Number/Name) DS7 / <i>High Performance Computing Modernization Program</i>	
B. Accomplishments/Planned Programs (\$ in Millions)			FY 2024	FY 2025	FY 2026
DoD RDTE and acquisition engineering communities to effectively and efficiently investigate, demonstrate, and mature a broad range of technologies through advanced computational methods.					
FY 2025 Plans: Will mature and demonstrate 24 or more high-end computers across a full range of classifications at five geographically distributed DoD supercomputing resource centers to collectively provide over 120 quadrillion floating-point operations/calculations per second of capability. Will continue to conduct complex, highly-coupled, large-scale, scientific and engineering simulations and analyses that mature and demonstrate capabilities for important DoD research, development, and test priorities. Will continue to mature and demonstrate data-intensive computing, persistent data services, and data archiving/retrieval for artificial intelligence/machine learning and other DoD use cases employing large volumes of data (over 250 quadrillion bytes in total). Will continue to mature new technologies for accelerating computations and sharing of highly classified high-end computers among multiple special programs. Will continue to mature and demonstrate seamless access to resources across DSRCs and transparent interfaces with cloud computing services for those DoD entities that demand a hybrid compute capability. Will implement new high-end computing capabilities to support technology transition efforts in acquisition engineering and international collaboration.					
FY 2026 Plans: Will mature and demonstrate 24 or more high-performance computers across a full range of classifications at five geographically distributed DoD supercomputing resource centers to collectively provide over 125 quadrillion floating-point operations/calculations per second of capability. Will continue to conduct physics-driven, interdisciplinary, large-scale scientific and engineering simulations and analyses that mature and demonstrate capabilities for important DoD research, development, and test priorities. Will continue to mature and demonstrate data-intensive computing, persistent data services, and data archiving/retrieval for artificial intelligence/machine learning and other DoD use cases employing large volumes of data (over 300 quadrillion bytes in total). Will continue to mature new technologies for accelerating computations and sharing of highly classified high-end computers among multiple special programs. Will continue to mature and demonstrate seamless access to resources across DSRCs and transparent interfaces with cloud computing services for those DoD entities that demand a hybrid compute capability. Will continue to implement new supercomputing capabilities to support technology transition efforts in acquisition engineering and international collaboration while protecting sensitive data and information.					
FY 2025 to FY 2026 Increase/Decrease Statement: Funding decrease reflects adjustments to planned milestones and Army reduction.					
Title: Defense Research and Engineering Network (DREN)			53.541	56.361	52.080
Description: The DREN effort investigates, demonstrates, and matures state-of-the-art digital networking technologies to ensure a robust distributed environment among HPCMP sites, the DoD HPC RDTE and acquisition engineering communities, and other major defense sites; investigates, demonstrates, and matures the most advanced digital security capabilities to effectively					

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army		Date: June 2025		
Appropriation/Budget Activity 2040 / 3	R-1 Program Element (Number/Name) PE 0603461A / High Performance Computing Modernization Program	Project (Number/Name) DS7 / High Performance Computing Modernization Program		
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2024	FY 2025	FY 2026
protect the intellectual property of the DoD and its contract entities as they employ HPCMP advanced capabilities; employs complementary specialized expertise to mature and exploit this environment.				
FY 2025 Plans: Will mature and demonstrate secure, advanced networking across a full range of classifications to provide over 1600 Gigabits per second of aggregate bandwidth to more than 230 CONUS and 18 OCONUS sites to implement computational workflows that employ various combinations of high-end computing resources, research assets, test center devices, weapon/platform prototypes, and live participants to mature and demonstrate capabilities for important DoD research, test, and engineering priorities. Will continue to expand DREN installation in the Pacific and other regions of interest to meet test requirements in response to emerging threats. Will continue to mature and enhance the secure protection of DREN from external and internal threats to effectively protect the intellectual property of the DoD and its contract entities engaged in research, test, and engineering missions.				
FY 2026 Plans: Will mature and demonstrate secure, advanced networking across a full range of classifications to provide over 1800 Gigabits per second of aggregate bandwidth to more than 250 CONUS and 24 OCONUS sites to implement computational workflows that employ various combinations of high-end computing resources, research assets, test center devices, weapon/platform prototypes, and live participants to mature and demonstrate capabilities for important DoD research, test, and engineering priorities. Will continue to expand DREN installation in the Pacific, Europe, and other regions of interest to meet test requirements in response to emerging threats. Will continue to mature and enhance the secure protection of DREN from external and internal threats to effectively protect the intellectual property of the DoD and its contract entities engaged in research, test, and engineering missions.				
FY 2025 to FY 2026 Increase/Decrease Statement: Funding decrease reflects adjustments to planned milestones and Army reduction.				
Title: Software Applications		51.981	41.389	54.317
Description: This effort optimizes, enhances, demonstrates, and matures software applications to provide for the adaptation of widely used applications and algorithms to address RDTE and acquisition engineering communities requirements. The Computational Research Engineering Acquisition Tools and Environments (CREATE) initiative demonstrates and matures advanced application codes to allow scientists and engineers to use supercomputers to design and analyze virtual prototypes of DoD ships, fixed-wing aircraft, rotorcraft, ground vehicles, and radio frequency (RF) antennas; HPCMP Institutes demonstrate and mature advanced supercomputing application codes to address critical high-impact DoD challenges (e.g. blast protection for platforms and personnel, high-power microwaves and lasers, munition sensitivities, and mobile network designs/prototypes); High Performance Computing Applications Software Initiative (HASI) projects address the need to mature and refine critical				

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army			Date: June 2025		
Appropriation/Budget Activity 2040 / 3		R-1 Program Element (Number/Name) PE 0603461A / <i>High Performance Computing Modernization Program</i>	Project (Number/Name) DS7 / <i>High Performance Computing Modernization Program</i>		
B. Accomplishments/Planned Programs (\$ in Millions)			FY 2024	FY 2025	FY 2026
DoD software that can take advantage of new and emerging hardware advances; the Frontier initiative represents and supports the DoD's highest-priority, highest-impact, most demanding computational work, both from a technical and mission-relevance standpoint; the Productivity, Enhancement, Technology Transfer, and Training (PETTT) initiative (1) optimizes and enhances critical DoD physics based and engineering software to allow scientists and engineers to execute scientific calculations with precision and efficiency on leading-edge supercomputers, (2) demonstrates and matures immersive collaborative programming environments to improve science and engineering workflows, and (3) demonstrates and matures leading-edge computational technology from academia and industry.					
<i>FY 2025 Plans:</i> Will continue to mature and demonstrate 12 software applications for high-end computers to be used by over 150 DoD stakeholder organizations in air, land, and sea programs of record (PORs) as well as future concept development for DoD's highest priorities. Will continue to mature and demonstrate software tools and environments for high-end computers and provide training to over 3000 users to improve resource effectiveness and impact. Will continue to mature software applications for the operation of DSRC high-end computers in support of over 2000 users and staff. Will demonstrate new HPC tools for acquisition engineering.					
<i>FY 2026 Plans:</i> Will continue to improve modeling and simulation gaps across the DoD acquisition community and mature and demonstrate relevant software applications for high-end computers to be used by over 180 DoD stakeholder organizations across government, industry, and academia in support of air, land, and sea programs of record (PORs) as well as future concept development for the DoD's highest priorities. Will continue to mature and demonstrate software tools and environments on high-end computers in support of critical technology areas and provide training to over 3000 users to improve resource effectiveness and impact. Will leverage high-end computing experts in the acquisition community to significantly impact acquisition and digital engineering efforts across the DoD.					
<i>FY 2025 to FY 2026 Increase/Decrease Statement:</i> Funding Increase reflects adjustments to planned milestones.					
Accomplishments/Planned Programs Subtotals			246.739	239.597	241.855
C. Other Program Funding Summary (\$ in Millions)					
N/A					
Remarks					
N/A					

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army		Date: June 2025
Appropriation/Budget Activity 2040 / 3	R-1 Program Element (Number/Name) PE 0603461A / High Performance Computing Modernization Program	Project (Number/Name) DS7 / High Performance Computing Modernization Program
D. Acquisition Strategy N/A		

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Army										Date: June 2025		
Appropriation/Budget Activity 2040: Research, Development, Test & Evaluation, Army / BA 3: Advanced Technology Development (ATD)					R-1 Program Element (Number/Name) PE 0603462A / Next Generation Combat Vehicle Advanced Technology							
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
Total Program Element	-	433.324	254.662	141.301	-	141.301	-	-	-	-	-	-
BF4: Combat Vehicle Robotics Adv Tech	-	35.534	55.229	57.194	-	57.194	-	-	-	-	-	-
BF7: Crew Augmentation and Optimization Adv Tech	-	3.812	4.367	3.398	-	3.398	-	-	-	-	-	-
BG1: Sensors for Auto Oper and Survivability Adv Tech	-	11.714	9.592	8.928	-	8.928	-	-	-	-	-	-
BG3: Modeling and Simulation for MUMT Advanced Tech	-	6.113	6.456	5.133	-	5.133	-	-	-	-	-	-
BG7: Ground Systems Active Defense (GSAD) Advanced Tech	-	56.229	51.960	42.024	-	42.024	-	-	-	-	-	-
BH6: Platform Electrification and Mobility Adv Tech	-	66.043	11.003	7.630	-	7.630	-	-	-	-	-	-
BH8: Enhanced VETRONICS Advanced Technology	-	10.268	13.867	5.038	-	5.038	-	-	-	-	-	-
BI3: Sensor Protection Advanced Technology	-	1.703	1.752	1.029	-	1.029	-	-	-	-	-	-
BI5: Materials Application and Integration Adv Tech	-	4.202	-	-	-	-	-	-	-	-	-	-
BK1: Autonomous Mobility Adv Tech	-	5.305	3.860	-	-	-	-	-	-	-	-	-
BK4: Next Gen Intelligent Fire Control(NG-IFC) Adv Tech	-	4.170	-	-	-	-	-	-	-	-	-	-
BK6: Adv Direct InDirect Armament Sys (ADIDAS) Adv Tech	-	0.779	6.370	10.927	-	10.927	-	-	-	-	-	-
BP6: Ground Vehicle Advanced Technology(CA)	-	223.134	86.000	-	-	-	-	-	-	-	-	-

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Army										Date: June 2025			
Appropriation/Budget Activity					R-1 Program Element (Number/Name)								
2040: Research, Development, Test & Evaluation, Army / BA 3: Advanced Technology Development (ATD)					PE 0603462A / Next Generation Combat Vehicle Advanced Technology								
BZ9: Smart Targeting Environment for Lower Level Assets	-	4.318	4.206	-	-	-	-	-	-	-	-	-	

Note

In FY 2026 project DN5 / Intelligent Armaments Enabled by Autonomy is a new start within the Next Generation Combat Vehicle Advanced Technology program

A. Mission Description and Budget Item Justification

This Program Element (PE) executes development, maturation, and demonstration for the Army's modernization priority for the Next Generation of Combat Vehicle (NCCV). This PE matures, integrates and demonstrates combat vehicle technologies that enable the Army to have a smarter, faster, more lethal, more precise, more protected, and more adaptable force. Technology development builds upon the foundational vehicle architectures to support the NGCV, to include autonomy architecture, power architecture, vehicle electronic architecture, physical architecture, lethality architecture and vehicle protection architecture. Technologies developed, matured, and demonstrated will enable leap ahead capabilities for manned, optionally manned and unmanned vehicles that deliver decisive lethality.

Project BF4: Combat Vehicle Robotics Adv Tech was rescoped in PE 0603462A to reflect Department of Defense priorities and will cease the testing and validation of Government developed autonomy software and renewing focus towards integration and testing of industry software. Project BH6: Platform Electrification and Mobility Adv Tech was rescoped in PE 0603462A to reflect Department of Defense priorities and will cease the testing and validation of hybrid-drive systems for combat vehicles.

Research in this PE complements PE 0602141A (Lethality Technology), PE 0602144A (Ground Technology), PE 0602145A (Next Generation Combat Vehicle Technology), PE 0602146A (Network C3I Technology), PE 0603116A (Lethality Advanced Technology), PE 0603119A (Ground Advanced Technology), PE 0603463A (Network C3I Advanced Technology), PE 0604115A (Technology Maturation Initiatives), and PE 0708045A (End Item Industrial Preparedness Activities). Research in this PE also transitions to PE 0603645A (Armored Systems Modernization Adv Dev) and PE 0604017A (Robotics Development).

The cited research is consistent with the Under Secretary of Defense for Research and Engineering priority focus areas and the Army Modernization Strategy.

Research is performed by the Command, Control, Computers, Communications, Cyber, Intelligence, Surveillance, and Reconnaissance (C5ISR) Center, Armament Center, Ground Vehicle Systems Center, and the Geotechnical and Structures Laboratory.

The FY 2026 request was reduced by \$0.806 million for Advisory and Assistance Services to promote efficiencies and advance the policies of the Administration in alignment with Executive Order 14222, "Implementing the President's Department of Government Efficiency Cost Efficiency Initiative."

The FY 2026 request was reduced by \$0.726 million for civilian personnel to optimize the workforce in compliance with Executive Order 14210, "Implementing the President's Department of Government Efficiency Workforce Optimization Initiative."

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Army				Date: June 2025		
Appropriation/Budget Activity		R-1 Program Element (Number/Name)				
2040: Research, Development, Test & Evaluation, Army / BA 3: Advanced Technology Development (ATD)		PE 0603462A / Next Generation Combat Vehicle Advanced Technology				
B. Program Change Summary (\$ in Millions)		FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total
Previous President's Budget		217.394	175.198	185.579	-	185.579
Current President's Budget		433.324	254.662	141.301	-	141.301
Total Adjustments		215.930	79.464	-44.278	-	-44.278
• Congressional General Reductions		-	-			
• Congressional Directed Reductions		-	-29.576			
• Congressional Rescissions		-	-			
• Congressional Adds		221.134	86.000			
• Congressional Directed Transfers		-	-			
• Reprogrammings		-1.907	-			
• SBIR/STTR Transfer		-3.297	-			
• Adjustments to Budget Years		-	23.040	-44.278	-	-44.278
Congressional Add Details (\$ in Millions, and Includes General Reductions)						
Project: BP6: Ground Vehicle Advanced Technology(CA)						
Congressional Add: Blast resistant fuel systems						
Congressional Add: Chrome elimination and lethality for medium caliber ground weapons systems barrels						
Congressional Add: Autonomous ground vehicle research						
Congressional Add: Human digital twin and human machine interaction						
Congressional Add: Medium caliber hybrid composite barrel						
Congressional Add: Augmented reality for denied environments						
Congressional Add: Additive manufacturing of critical components						
Congressional Add: Advanced adhesives						
Congressional Add: Composite components for medium caliber armament systems						
Congressional Add: Highly engineered rotating components						
Congressional Add: Multi-national contested logistics system						
Congressional Add: Titanium armor and joining techniques						
Congressional Add: Dual chemistry battery pack demonstration						
Congressional Add: Hydrogen storage solution						
Congressional Add: Modular electric motors						

FY 2024	FY 2025
2.500	-
3.000	-
3.000	-
3.000	-
3.000	-
3.500	-
5.000	-
5.000	-
5.000	10.000
5.000	-
5.000	-
5.000	-
5.000	-
5.000	-
5.000	4.000

FY 2024	FY 2025
2.500	-
3.000	-
3.000	-
3.000	-
3.000	-
3.500	-
5.000	-
5.000	-
5.000	10.000
5.000	-
5.000	-
5.000	-
5.000	-
5.000	4.000

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Army		Date: June 2025	
Appropriation/Budget Activity 2040: Research, Development, Test & Evaluation, Army / BA 3: Advanced Technology Development (ATD)		R-1 Program Element (Number/Name) PE 0603462A / Next Generation Combat Vehicle Advanced Technology	
Congressional Add Details (\$ in Millions, and Includes General Reductions)		FY 2024	FY 2025
Congressional Add: <i>Cybersecurity for autonomous ground vehicles</i>		5.500	3.500
Congressional Add: <i>Autonomous vehicle mobility</i>		5.500	-
Congressional Add: <i>Casting to additive manufacturing</i>		6.000	-
Congressional Add: <i>Digital Twin</i>		7.000	-
Congressional Add: <i>Off-road maneuver</i>		7.000	-
Congressional Add: <i>Maneuverable lightweight electric weight reducer</i>		7.500	-
Congressional Add: <i>Advanced nickel-cobalt alloy armor production</i>		8.000	-
Congressional Add: <i>Lithium-ion batteries for military vehicles</i>		8.000	-
Congressional Add: <i>Program increase</i>		8.000	-
Congressional Add: <i>Virtual and physical prototyping</i>		8.000	-
Congressional Add: <i>Autonomous minefield clearance</i>		8.134	5.000
Congressional Add: <i>Operational energy platform testing</i>		10.000	-
Congressional Add: <i>Synthetic graphite battery technology</i>		10.000	-
Congressional Add: <i>Digital enterprise management for OMFV</i>		10.000	-
Congressional Add: <i>Silent watch hydrogen fuel cell</i>		10.000	-
Congressional Add: <i>Advanced materials applications</i>		12.000	17.500
Congressional Add: <i>Advanced manufacturing center of excellence</i>		12.500	-
Congressional Add: <i>Driver vision enhancement with sensor fusion technology</i>		15.000	-
Congressional Add: <i>Predictive Maintenance System</i>		2.000	-
Congressional Add: <i>autonomous vehicle mobility institute</i>		-	1.500
Congressional Add: <i>CBRN autonomous operations</i>		-	2.000
Congressional Add: <i>Digital enterprise management for XM30</i>		-	7.500
Congressional Add: <i>HTPEM APU</i>		-	5.000
Congressional Add: <i>Mesophase pitch-based synthetic graphite</i>		-	7.000
Congressional Add: <i>operational energy testing</i>		-	5.000
Congressional Add: <i>Silent mobility vehicle cooling</i>		-	8.000

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Army		Date: June 2025	
Appropriation/Budget Activity 2040: Research, Development, Test & Evaluation, Army / BA 3: Advanced Technology Development (ATD)		R-1 Program Element (Number/Name) PE 0603462A / Next Generation Combat Vehicle Advanced Technology	
Congressional Add Details (\$ in Millions, and Includes General Reductions)		FY 2024	FY 2025
Congressional Add: Virtual prototyping of ground-air vehicle formations		-	10.000
Congressional Add Subtotals for Project: BP6		223.134	86.000
Congressional Add Totals for all Projects		223.134	86.000
Change Summary Explanation Funding increase in Fiscal Year (FY) 2026 from the previous PB to the current PB reflects the net effect of realignments for Human - Machine Integrated Formations (H-MIF) to mature and demonstrate technologies for autonomous platforms, and autonomous platform subsystems.			

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army										Date: June 2025		
Appropriation/Budget Activity 2040 / 3					R-1 Program Element (Number/Name) PE 0603462A / Next Generation Combat V ehicle Advanced Technology				Project (Number/Name) BF4 / Combat Vehicle Robotics Adv Tech			
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
BF4: Combat Vehicle Robotics Adv Tech	-	35.534	55.229	57.194	-	57.194	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This Project matures and demonstrates innovative enabling technologies that permits scalable integration of multi-domain robotic and autonomous system capabilities within Army formations supporting all combat warfighting functions (close combat, reconnaissance, targeting and acquisition, etc.). Project focus areas include Platform Electronic Control and Autonomy Safety Engineering, Unmanned Maneuver Technologies, and Soldier-Robotic Interface Integration. This Project integrates these technologies with other robotic and autonomous system technologies and validates technologies in relevant environments.

This project is also coordinated with Program Element (PE) 0602145A (Next Generation Combat Vehicle Technology), and transitions to PE 0604017A (Robotics Development).

The cited research is consistent with the Under Secretary of Defense for Research and Engineering priority focus areas and the Army modernization strategy.

Work in this Project is performed by the Ground Vehicle System Center (GVSC).

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2024	FY 2025	FY 2026
Title: Platform Electronic Control	6.217	5.225	7.670
Description: This effort optimizes the electronic, closed loop control of by-wire vehicle systems to provide stable, reliable, and predictable control in the presence of potential malicious or unintended commands for both wheeled and tracked unmanned vehicles.			
FY 2025 Plans: Mature and continue optimization of safety processes, components, and software focused on low level control (base vehicle platforms sensors, Drive By-Wire (DBW) systems, payload/subsystem management/monitoring) for uncrewed systems. Expand integration of safety certified components onto uncrewed systems to improve safe mobility with positive control for uncrewed ground vehicles. These certified components and subsystems increase reliability of the platform, mean time between failure, and improve operational safety for users and close operators. Maturation of safety components to expand utilization of Real Time Operating Systems (RTOS) and align to well defined systems safety standards to improve the necessary Level of Rigor for autonomous vehicle systems. Safety processes and components are aligned with the Autonomous Ground Vehicle Reference Architecture (AGVRA) framework and GCS Common Infrastructure Architecture (GCIA) to maintain seamless interfacing with			

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army		Date: June 2025	
Appropriation/Budget Activity 2040 / 3	R-1 Program Element (Number/Name) PE 0603462A / <i>Next Generation Combat Vehicle Advanced Technology</i>	Project (Number/Name) BF4 / <i>Combat Vehicle Robotics Adv Tech</i>	
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2024	FY 2025
ongoing improvement to the ARMY autonomy libraries, and user interfaces with additional maturation focus on standardizing interface to support industry autonomy stacks and components.			
<p>Mature and improve Robotic and Autonomy Systems (RAS) safety standards for uncrewed ground vehicle systems. Expand the Ground Vehicle Robotics (GVR) Safety Council which manages, reviews, and publishes guidelines to improve on best practices for development of safety critical processes, components, and software for uncrewed ground vehicle systems. The Ground Vehicle Robotics Safety Council develops, manages, and maintains the safety processes and documentation for GVR ensuring GVR programs in the organization adhere to organizational standards and are ready for verification and validation by the test community. This will improve testing with warfighters and reduce developmental of autonomous ground systems.</p> <p>FY 2026 Plans:</p> <p>Will improve, extend, and demonstrate an optimized closed loop safety certified drive by wire (DBW) for robotic ground vehicles. Focus on optimization and demonstration of safety certified components. These certifiable components align to Army safety standards and improve the safety pedigree for unmanned system. Focus on expanding safety certified control to assured teleoperation which ensure safe and valid commands from a known operator are executed or the system/platform revert to a safe state. Additional focus placed on assured video which ensure real-time video from electro-optical sensors to robotic users while operating unmanned systems. RVMS manage the state of the unmanned platform in real-time, provide critical information to the user or autonomy system, maintain active state of platform/sensors/and payloads, as well ensuring the platform operates within its safe operating envelope. The Vehicle Safety Transponder ensures the transition of an unmanned platform to a safe state. Maturation of RVMS to support video scaling and video degradation detection to ensure live video feeds with minimal latency at best resolution a major focus to support assured video. Demonstrate enhancements through Engineering Evaluation Testing (EET) to show technical maturity of components. Continue to mature and validate Robotic and Autonomy Systems (RAS) safety standards for unmanned ground vehicle systems based on EET activities. Continue to update Ground Vehicle Robotics Safety Board published guidelines to show they meet best practices for development of safety critical software for unmanned ground vehicle systems while incorporating lessons learned. Validation of Ground Vehicle Robotics Safety Board processes result in improved safety pedigree for unmanned ground vehicle system, which enable higher confidence by safety and testing community resulting in safety confirmation for unmanned ground systems. This enable testing with warfighters and development of autonomous ground systems.</p> <p>FY 2025 to FY 2026 Increase/Decrease Statement:</p> <p>Funding increase reflects realignment within Project for maturation of safety certified systems for assured Teleoperation and Assured Video.</p>			
Title: Unmanned Maneuver		20.306	16.950
			-

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army			Date: June 2025		
Appropriation/Budget Activity 2040 / 3		R-1 Program Element (Number/Name) PE 0603462A / <i>Next Generation Combat Vehicle Advanced Technology</i>		Project (Number/Name) BF4 / <i>Combat Vehicle Robotics Adv Tech</i>	
B. Accomplishments/Planned Programs (\$ in Millions)			FY 2024	FY 2025	FY 2026
<p>Description: This effort integrates and demonstrates the advanced mobility performance of autonomous systems within complex, combat scenarios to allow for the completion of mission goals in individual and teaming configurations at various levels of autonomy.</p> <p>FY 2025 Plans: Improve and demonstrate an autonomous maneuver capabilities, with autonomous vehicles operating at speeds comparable to manned vehicles and executing comparable movement techniques in obstructed environments; continue to improve and demonstrate coordinated movements including both robotic platforms and Soldiers in these environments, such as collaborate zone-based surveillance; continue to improve performance and demonstrate autonomous maneuver in degraded or hostile environments, enabling autonomous maneuvers in areas where sensor performance is poor (e.g., due to weather or smoke) and communications are not reliable; improve night-time operation of autonomous vehicles by reducing vehicle signatures through implementation of passive sensing techniques developed by Autonomous Behaviors and Perception subtask; mature the Autonomous Ground Vehicle Reference Architecture (AGVRA) framework by developing conceptual, logical and physical data models while connecting them to existing instantiated architectures and mature the safety and cyber metamodels and associated libraries to support these evolving viewpoints; mature AGVRA functional model elements and mature functional models to demonstrate a cohesive functional model, and advance overall mission modeling and test planning; implement cyber hardened architecture aspects for ground autonomy, including the development of a broad mission threat model, verification plan, and penetration testing plans; improve and demonstrate interoperability implementation to account for advances in all product lines.</p> <p>FY 2025 to FY 2026 Increase/Decrease Statement: Funding decrease reflects realignment within Project to Unmanned Maneuver Demonstration.</p>					
<p>Title: Soldier-Robotic Interface Integration</p> <p>Description: This effort is a focused approach to optimize control of the unmanned systems with improved performance incorporating Manned-Unmanned Teaming enabled formations and is measured against multiple phases of the combat scenario for improved operational effectiveness and overall system performance.</p> <p>FY 2025 Plans: Improve and demonstrate the ability to operate three or more robotic assets from by a single operator within through the Warfighter Machine Interface (WMI). This task will develop improve the user interface minimize the by reducing the cognitive workload on a single operator and while allowing the robot operator to achieve the mission with more effective improved understanding of the robot's situational awareness, ability to maneuver and achieve the mission fully; integration into RVIS</p>			5.646	5.892	3.152

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army		Date: June 2025		
Appropriation/Budget Activity 2040 / 3	R-1 Program Element (Number/Name) PE 0603462A / Next Generation Combat Vehicle Advanced Technology	Project (Number/Name) BF4 / Combat Vehicle Robotics Adv Tech		
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2024	FY 2025	FY 2026
model. These functions will be visible validated at the Engineering Evaluation Test's (EET) as through the soldier robotic interface technologies will be linked linkage across many of the testing events. FY 2026 Plans: Will improve and develop autogenerated operations order into translated mission tasks for the robotic operators to understand from their mission completion and robotic capability within the Uncrewed Vehicle Control (UVC) architecture. Highlight an enriched user interface and allow the robot operator to achieve a mission with much more effectiveness. Integrate into the RVIS model and add focus on the control of a variety of mission payloads (e.g., CROWS). Enable us to reduce the operator to robot ratio. Provides the operators the ability to edit and notify their team and command and control and be able to task individual robotic assets. FY 2025 to FY 2026 Increase/Decrease Statement: Funding decrease reflects realignment within Project to Unmanned Maneuver Demonstration.				
Title: Small UGV as Deployable Sensor Description: This effort improves the long range autonomy, mobility and sensing capabilities of small UGVs to expand reconnaissance in terrains and environments large systems cannot reach (i.e. culverts, underground, dense urban) and to serve as unmanned listening & observation posts. The small UGVs will deploy out of NGCV systems to enhance battlespace awareness and reduce the risk to the systems. FY 2025 Plans: Continue to integrate, optimize, and demonstrate advanced autonomy behaviors, Intelligence, Surveillance, and Reconnaissance (ISR) sensors, and optimize small, unmanned ground system platform and controls (using the Warfighter Machine Interface - WMI); mature and demonstrate enhanced autonomy behaviors for small Unmanned Ground Vehicles by continuing to improve the RTK capabilities for small platform teaming to autonomously deploy from an unmanned combat vehicle and maneuver in rough terrain to perform tasks ISR missions; integrate and demonstrate Artificial Intelligence (AI) enabled electro-optical and audio Modular Mission Payload (MMP) sensors with small UGV autonomy to optimize threat and target detection probability when performing ISR missions; validate maturity of enhancements through Engineering Evaluation Testing (EET) of the autonomous technology and integrated MMPs in terms of performance, and technical maturity, while ensuring safe operation. FY 2025 to FY 2026 Increase/Decrease Statement: Funding decrease reflects realignment within Project to Unmanned Maneuver Demonstration.		2.466	2.872	-
Title: Human - Machine Integrated Formations (H-MIF) Description: This effort matures and demonstrates technologies for autonomous platforms and autonomous platform subsystems.		0.899	24.290	26.122

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army		Date: June 2025
Appropriation/Budget Activity 2040 / 3	R-1 Program Element (Number/Name) PE 0603462A / Next Generation Combat Vehicle Advanced Technology	Project (Number/Name) BF4 / Combat Vehicle Robotics Adv Tech
B. Accomplishments/Planned Programs (\$ in Millions)		
FY 2025 Plans: Advance robotic and autonomous systems warfighter effectiveness, lethality and survivability for Human-Machine Integrated Formations (H-MIF) by developing and integrating command and control (C2) and autonomy software for robotic maneuver and payload control; mature autonomy for ground robots through software development, advancement and integration of industry best of breed capability and innovation leveraging robotic vehicle management system (RVMS) for assured control; instantiate modular open system architecture design for sensors, intra-vehicle and external networks; finalize infantry and armor formation control vehicle designs and integrate external network, power distribution, payloads and control interfaces; complete the physical integration of hardware and payloads on armor and infantry robotic platforms; continue lethality control software development and integration of CROWS-J on robotic platforms; begin engineering evaluation and shakeout testing of section level formation capability.		
FY 2026 Plans: Will integrate best of breed autonomy and Soldier-Robot interface advancement into defined software architecture to provide assured safety and autonomy in complex terrain, multi-asset control and hand-off and improved operational effectiveness. By integrating and building upon modular open systems architecture and implementation, ensure standardized interfaces for robotic air and ground platform command and control and a variety of additional weapons/sensors and other payloads for armor and infantry formations; enhance system hardware and software robustness and reliability by ensuring H-MIF platforms and payloads are sufficiently hardened and develop enablers to a maturity level that allows system of system (SoS) integration of Armored and Infantry platoons. By enriching the fidelity of system modeling and system integration lab instantiations, employ a collaborative, distributed software development environment for continuous integration/continuous delivery (CI/CD) of assured/ secure software, enable virtual demonstrations and training with soldiers, system testing, verification and validation.		
FY 2025 to FY 2026 Increase/Decrease Statement: Funding realigned from Program Element (PE) 0602144A (Ground Technology) / Project CI2 (Ground Enabling University Applied Research), DG1 (Development of Obscurants), PE 0602145A (Next Generation Combat Vehicle Technology) / Project BF3 (Combat Vehicle Robotics Tech), BF6 (Crew Augmentation and Optimization Tech), BF8 (Artificial Intelligence & Machine Learning Tech), BF9 (Sensors for Autonomous Operations and Surv Tech), BG6 (Advanced Concepts for Active Defense Technology), BH5 (Platform Electrification and Mobility Tech), BI2 (Sensor Protection Technology), BJ2 (Tactical and Navigation Lasers Sensors Technology), PE 0602180A (Artificial Intelligence and Machine Learning Technologies) / Project CL7 (ATR Using Multiple Cooperative Sensors App Tech), PE 0603040A (Artificial Intelligence and Machine Learning Advanced Technologies) / Project CL6 (ATR Using Multiple Cooperative Sensors Adv Tech), PE 0603041A (All Domain Convergence Advanced Technology) / Project CM2 (Collaborative Convergence Adv Tech Development), PE 0603116A (Lethality Advanced Technology) / Project LR1 (Long Range Sensing Adv Tech), PE 0603119A (Ground Advanced Technology) / Project BL3 (Explosives Forensics Advanced Technology), CJ9 (Ground Enabling University Adv Development), DG2 (Advanced		

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army		Date: June 2025	
Appropriation/Budget Activity 2040 / 3	R-1 Program Element (Number/Name) PE 0603462A / <i>Next Generation Combat Vehicle Advanced Technology</i>	Project (Number/Name) BF4 / <i>Combat Vehicle Robotics Adv Tech</i>	
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2024	FY 2025
Development of Obscurants), PE 0603462A (Next Generation Combat Vehicle Advanced Technology) / Project BG1 (Sensors for Auto Oper and Survivability Adv Tech), BG7 (Ground Systems Active Defense (GSAD) Advanced Tech), BH6 (Platform Electrification and Mobility Adv Tech), and BI3 (Sensor Protection Advanced Technology).			
Title: Unmanned Maneuver Demonstration. Description: This effort integrates and demonstrates the advanced mobility performance of industry partner autonomous systems within complex, combat scenarios to allow for the completion of mission goals in individual and teaming configurations at various levels of autonomy. FY 2026 Plans: Will exploit industry autonomous systems for robotic ground maneuver formations in a variety of terrains within existing Intelligence, Reconnaissance, and Surveillance (ISR) mission sets; integrate relevant payloads to optimize performance during operationally relevant use cases to enable higher speed autonomous movement and maneuver; validate the operation of cyber secured autonomy and demonstrate secure software update capability; optimize and validate industry concepts through Engineering Evaluation Testing (EET) to ensure these concepts provide value to the warfighter. FY 2025 to FY 2026 Increase/Decrease Statement: Funding increase reflects realignment within Project from Unmanned Maneuver, Small UGV as Deployable Sensor, and Soldier-Robotic Interface Integration.		-	20.250
Accomplishments/Planned Programs Subtotals		35.534	57.194
C. Other Program Funding Summary (\$ in Millions) N/A Remarks D. Acquisition Strategy N/A			

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army										Date: June 2025		
Appropriation/Budget Activity 2040 / 3					R-1 Program Element (Number/Name) PE 0603462A / Next Generation Combat Vehicle Advanced Technology				Project (Number/Name) BF7 / Crew Augmentation and Optimization Adv Tech			
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
BF7: Crew Augmentation and Optimization Adv Tech	-	3.812	4.367	3.398	-	3.398	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This Project rapidly matures and demonstrates advanced commercial technologies to enhance crew performance and enable crew augmentation and optimization for closed hatch operations of ground vehicle platforms in a complex multi-domain operations environment. This includes rapid integration of intelligent systems, leveraging machine learning, to improve dynamic tasking, full crew interactions, decision aids, early warnings, command and control, crew use of UAS/Counter-UAS capabilities, to reduce response times and shorten task durations, and to optimize tasking and function. Mature technologies are incorporated onto existing or prototype Army-owned technology demonstrators so that performance of the enabling technologies can be evaluated and the delivery of critical capabilities that optimize crew performance can be accelerated .

Work in this Project is also coordinated with work in Program Element (PE) 0602145A (Next Generation Combat Vehicle Technology) and PE 0602143 (Soldier Lethality Technology).

The cited work is consistent with the Under Secretary of Defense for Research and Engineering priority focus areas and the Army modernization strategy. Work in this Project supports the Next Generation Combat Vehicle Army Modernization Priority.

Work in this Project is performed by the Ground Vehicle System Center (GVSC)

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2024	FY 2025	FY 2026
Title: Crew Augmentation and Optimization Advanced Technology	3.812	4.367	3.398
Description: This effort focuses on optimizing crew station technologies while reducing crew sizes that will provide the same overall performance by exploiting human-machine interaction technologies, automation, machine intelligence and customization to permit soldiers to achieve performance beyond today's constrained ground vehicle environment. This effort focuses on the down-selection, integration, optimization, and demonstration of crew interaction technologies. It enables universal crew interfaces across multiple platforms that enhance crew interactions while reducing crew size.			
FY 2025 Plans: Mature and demonstrate technologies that augment overall NGCV crew task load; demonstrate use of augmentation technology aids and virtual control to facilitate battlespace awareness of events taking place outside the vehicle in simulation of closed hatched operations, improving protection for Soldiers operating NGCVs; optimize NGCV crew and/or formation notifications and			

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army		Date: June 2025		
Appropriation/Budget Activity 2040 / 3		R-1 Program Element (Number/Name) PE 0603462A / Next Generation Combat Vehicle Advanced Technology	Project (Number/Name) BF7 / Crew Augmentation and Optimization Adv Tech	
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2024	FY 2025	FY 2026
cuing of mid-mission events; integrate, optimize and demonstrate advanced crew-to-section embedded training capability for NGCV platforms; validate effectiveness in an operationally-relevant, field demonstration. FY 2026 Plans: Will mature and demonstrate commercial technologies that provide for soldier-guided field adaptation of sensing and autonomous mobility technologies; demonstrate futuristic User Interfaces (UIs) of helmet-mounted displays and spatial audio to command, control and provide lethality for closed-hatched future combat platforms; mature and demonstrate Embedded Training capability for multi-role and add addition training modes for vehicle crews; demonstrate UAS/Counter-UAS crew technologies; validate effectiveness in operationally-relevant Modeling & Simulation (M&S) and field demonstration. FY 2025 to FY 2026 Increase/Decrease Statement: Funding decrease reflects an economic assumptions.				
Accomplishments/Planned Programs Subtotals		3.812	4.367	3.398
C. Other Program Funding Summary (\$ in Millions)				
N/A				
Remarks				
D. Acquisition Strategy				
N/A				

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army										Date: June 2025		
Appropriation/Budget Activity 2040 / 3					R-1 Program Element (Number/Name) PE 0603462A / Next Generation Combat Vehicle Advanced Technology				Project (Number/Name) BG1 / Sensors for Auto Oper and Survivability Adv Tech			
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
BG1: Sensors for Auto Oper and Survivability Adv Tech	-	11.714	9.592	8.928	-	8.928	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This Project matures, optimizes, and demonstrates automated, advanced multi-function sensors and integrates threat cueing capabilities for operations in full spectrum, complex environments, for next generation manned, optionally manned, and robotic platform applications. This Project will deliver sensor payloads which provide greatly increased situational awareness (e.g., pre-shot and hostile fire detection, threat classification) in all environments for manned and unmanned ground vehicle systems.

The cited research is consistent with the Under Secretary of Defense for Research and Engineering priority focus areas and the Army modernization strategy. Research in this Project supports the Army Science and Technology modernization priorities.

Work in this Project is performed by the Command, Control, Computers, Communications, Cyber, Intelligence, Surveillance and Reconnaissance (C5ISR) Center

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2024	FY 2025	FY 2026
Title: Advanced Sensors with Embedded Processing	8.908	5.827	5.363
Description: Matures and demonstrates advanced, multi-spectral and multi-function sensors, and image processing capabilities with improved performance in all environments and against all threats to include low-contrast targets in camouflage or in degraded conditions. Matures and demonstrates rapid detection of concealed enemy optical threat systems (visible, midwave infrared, longwave infrared) and real-time hostile fire detection (HFD) for anti-armor threats while on the move, exploiting multi-functional imaging components and embedded processing. Enables enhanced situational awareness and targeting capabilities in complex environments via manned, optionally manned, and robotic platform applications.			
FY 2025 Plans: Will develop advanced sensor components to inform future maturation of a common, modular multispectral sensor system with low power processing and reduced SWaP; mature and demonstrate precision far target location for on-the-move performance and reduced crew workload for legacy and next generation targeting and surveillance systems; exploit targeting and threat detection sensors with embedded processing in a laboratory environment to validate reduced user interactions and improved crew performance; optimize sensor-to-shooter timelines through automation of low-level sensor tasking and smart fusion of sensor data outputs.			
FY 2026 Plans:			

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army		Date: June 2025	
Appropriation/Budget Activity 2040 / 3	R-1 Program Element (Number/Name) PE 0603462A / <i>Next Generation Combat Vehicle Advanced Technology</i>	Project (Number/Name) BG1 / <i>Sensors for Auto Oper and Survivability Adv Tech</i>	
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2024	FY 2025
<p>Will demonstrate advanced targeting while on-the-move with optimized far target location (FTL) components and systems in permissive and denied environments; will exploit novel boresighting techniques to demonstrate precision FTL with reduced user workload; will demonstrate sensor automation and platform-level target fusion from multiple sensing sources on a tactical vehicle to validate reduced user interactions and improved target fidelity; will optimize the sensor and display used for vehicle navigation in a laboratory environment to improve driver situational awareness, obstacle avoidance, and reduce risk to platform and mission.</p> <p><i>FY 2025 to FY 2026 Increase/Decrease Statement:</i> Funding decrease reflects funding realignment within project and to Program Element PE 0603462A / Project BF4 Combat Vehicle Robotics Adv Tech to support Human-Machine Integrated Formations (H-MIF).</p>			
<p><i>Title:</i> Multi-Mission Payload</p> <p><i>Description:</i> Matures and demonstrates sensor payloads for ground vehicle based unmanned aerial systems to detect line of sight, and beyond line of sight threats and complex obstacles such as personnel and vehicles in all environments.</p> <p><i>FY 2025 Plans:</i> FY 2025 Plans: Will optimize polarized sensors and demonstrate with embedded detection algorithms and a ground penetrating radar sensor with synthetic aperture radar processing to accurately identify locations of near peer threats from small UAS systems. Will provide threat data and their precise locations onto the tactical network from the sUAS in real time to support maneuver decisions for improved survivability of US combat vehicles.</p> <p><i>FY 2026 Plans:</i> Will demonstrate Aided Target Recognition (AiTR) enabled sensors by exploiting data and imagery from low-cost electro-optical/infrared (EO/IR) payloads and small unmanned aircraft system platforms to quantify AiTR limitations, performance, and target location accuracies which will be used to inform size, weight, and power and sensor payload specifications for tethered platforms. Will expand and demonstrate AiTR capabilities using imagery collected in both temperate and sub-tropical environments.</p> <p><i>FY 2025 to FY 2026 Increase/Decrease Statement:</i> Funding decrease reflects funding realignment to Program Element PE 0603462A / Project BF4 Combat Vehicle Robotics Adv Tech to support Human-Machine Integrated Formations (H-MIF).</p>		2.806	3.765
Accomplishments/Planned Programs Subtotals		11.714	9.592
C. Other Program Funding Summary (\$ in Millions)			
N/A			
Remarks			

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army		Date: June 2025
Appropriation/Budget Activity 2040 / 3	R-1 Program Element (Number/Name) PE 0603462A / Next Generation Combat Vehicle Advanced Technology	Project (Number/Name) BG1 / Sensors for Auto Oper and Survivability Adv Tech
D. Acquisition Strategy N/A		

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army										Date: June 2025		
Appropriation/Budget Activity 2040 / 3					R-1 Program Element (Number/Name) PE 0603462A / Next Generation Combat Vehicle Advanced Technology				Project (Number/Name) BG3 / Modeling and Simulation for MUMT Advanced Tech			
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
BG3: Modeling and Simulation for MUMT Advanced Tech	-	6.113	6.456	5.133	-	5.133	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This Project matures and demonstrates modeling and simulation (M&S) tools/technologies to assess and improve freedom of movement for ground forces and supports vehicle developers by addressing challenges for robotic and ground vehicles. This Project matures and demonstrates obstacle detection capabilities for autonomous systems operating in complex environments. This Project also matures and demonstrates real-time mobility decision support tools, vehicle-terrain interaction models for autonomous convoy operations, simulation tools for vehicle mobility in highly altered terrain, and M&S tools for predicting the performance of autonomous vehicles. These M&S technologies can be integrated across Army vehicle platforms as required.

Work in this Project is coordinated with Program Element (PE) 0602145A (Next Generation Combat Vehicle Technology) / Project BG2 (Modeling and Simulation for MUMT Technology).

The work cited is consistent with the Under Secretary of Defense for Research and Engineering priority focus areas and the Army Modernization Strategy.

Work in this Project is performed by the United States Army Engineer Research and Development Center Geotechnical and Structures Laboratory.

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2024	FY 2025	FY 2026
Title: Autonomous Vehicle/Terrain Interactions Demonstration	6.113	6.456	5.133
Description: This effort matures and demonstrates the Virtual Autonomous Navigation Environment (VANE) to robustly simulate multiple vehicles/teaming behaviors operating in complex formations and complex, unstructured environments. This effort provides the capabilities to computationally assess manned/unmanned vehicle maneuvering through cross-country environments ensuring battlefield overmatch.			
FY 2025 Plans: Will demonstrate advanced vehicle terrain interface and soft-soil terramechanics for ground vehicle systems operating and highly altered terrain/environments. Will integrate and demonstrate real-time, physics-based thermal sensor modeling capabilities in operational environments.			
FY 2026 Plans: Will mature and demonstrate validated high-fidelity modeling and simulation tools integrated with Software-in-the-Loop (SITL) capabilities simulating and predicting coordinated human and machine interactions. Will validate advanced vehicle terrain			

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army		Date: June 2025		
Appropriation/Budget Activity 2040 / 3	R-1 Program Element (Number/Name) PE 0603462A / Next Generation Combat Vehicle Advanced Technology	Project (Number/Name) BG3 / Modeling and Simulation for MUMT Advanced Tech		
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2024	FY 2025	FY 2026
interface relationships for predicting performance of autonomous vehicle platforms operating in heterogeneous terrain and deformable soils; will mature, demonstrate, and validate robust, high-fidelity, physics-based thermal modeling and simulation sensor models.				
FY 2025 to FY 2026 Increase/Decrease Statement: Funding decrease reflects adjustments to planned milestones and Army reduction.				
Accomplishments/Planned Programs Subtotals		6.113	6.456	5.133
C. Other Program Funding Summary (\$ in Millions) N/A				
Remarks N/A				
D. Acquisition Strategy N/A				

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army										Date: June 2025		
Appropriation/Budget Activity 2040 / 3					R-1 Program Element (Number/Name) PE 0603462A / Next Generation Combat Vehicle Advanced Technology				Project (Number/Name) BG7 / Ground Systems Active Defense (GSAD) Advanced Tech			
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
BG7: Ground Systems Active Defense (GSAD) Advanced Tech	-	56.229	51.960	42.024	-	42.024	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This Project matures and demonstrates protection and survivability technologies to increase the survivability of ground vehicles and the protection of the Soldiers who depend on them. The tasks will focus on component maturation and demonstration and transfer products for demonstration as holistic (vehicle level) solutions. The Project will mature and demonstrate technologies to defeat threats throughout the timeline of a threat engagement; from obscuring a target, to actively defeat a threat and through mitigating its effects after engagement. These technologies include the active employment of smoke, physical and electronic active protection, advanced and adaptive armors, advanced and active blast mitigation systems and adaptive interior protection.

This Project will be coordinated with Program Element (PE) 0602145A (Next Generation Combat Vehicle Technology) and transitions to PE 0604852A (Suite of Vehicle Protection Systems - EMD).

The cited research is consistent with the Under Secretary of Defense for Research and Engineering priority focus areas and the Army modernization strategy.

Work in this Project is performed by the Ground Vehicle System Center (GVSC) and Command, Control, Computers, Communications, Cyber, Intelligence, Surveillance and Reconnaissance (C5ISR) Center

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2024	FY 2025	FY 2026
Title: Advanced Radar and Soft-Kill (A-RASK) Suite	6.866	6.620	-
Description: This effort matures and demonstrates next generation vehicle radar technologies and holistic electronic warning and soft-kill countermeasure techniques to support a layered modular active protection suite and ensure the survivability of ground combat platforms in all-weather day or night conditions with 360 degree situational awareness and threat Anti-Tank Guided Missile (ATGM) defeat.			
FY 2025 Plans: Will mature soft-kill countermeasure techniques to defeat laser-guided ATGM threats; Will determine optimized sensor configuration for detection of unknown/unexploited threats; Will improve threat detection algorithms to include additional emerging threat classes and increase accuracy of threat tracking; Will demonstrate representative hardware with enhanced algorithms for detection of unknown/unexploited threats in in relevant environment.			
FY 2025 to FY 2026 Increase/Decrease Statement:			

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army			Date: June 2025		
Appropriation/Budget Activity 2040 / 3		R-1 Program Element (Number/Name) PE 0603462A / Next Generation Combat Vehicle Advanced Technology	Project (Number/Name) BG7 / Ground Systems Active Defense (GSAD) Advanced Tech		
B. Accomplishments/Planned Programs (\$ in Millions)			FY 2024	FY 2025	FY 2026
Funding decrease reflects realignment to Program Element (PE) 0603275A (Electronic Warfare Advanced Technology) / Project A73 (Enhanced VETRONICS Advanced Technology) as a part of the Department of Defense Capability Based (Agile) Funding pilot, which provides enhanced capabilities by fostering innovation and accelerated deployment of promising technology.					
Title: Soft-Kill System Development Description: This effort matures and demonstrates soft-kill system technologies to protect combat vehicles from current and emerging ATGM threats at increased stand-off distances with an unlimited magazine and low collateral hazard. This capability will also improve situational awareness to vehicle occupants by detecting and alerting when threats have been fired. Technologies will be optimized and integrated on combat vehicles using the Modular Active Protection System (MAPS) Framework and Controller. They will be demonstrated in a relevant environment. FY 2025 Plans: Will begin development and maturation of next increment of soft-kill subsystems to address additional threats. Will environmentally harden the system, begin upgrading to the latest revision of the Modular Active Protection System Framework. Improve optimization of subsystems for space, weight, and power (SWAP) and begin virtual and lab demonstrations to assess subsystem performance and robustness in preparation for system integration. FY 2026 Plans: Will finalize maturation of the soft-kill subsystem design. Will fabricate and integrate components for subsystem vehicle installation. Will begin integrating the soft-kill subsystems utilizing the Survivability Framework and Vehicle Protection Systems (VPS) Base Kit (VBK). Will optimize subsystem and system performance through lab / field evaluation. Will assess and document subsystem performance. FY 2025 to FY 2026 Increase/Decrease Statement: This increase is due to fabrication and integration of components and subsystems and is in accordance with the project plan.			16.867	12.833	13.998
Title: Survivability Capability Characterization and Demonstration Description: This effort evaluates, validates, and demonstrates emerging protection technologies to characterize and assess their performance and maturity and potential for transition to Product Manager (PdM) Vehicle Protection System (VPS). FY 2025 Plans: Will complete Survivability subsystem/system demonstration, provide documentation and reports for selected survivability subsystems, and transition relevant information to stakeholders. FY 2025 to FY 2026 Increase/Decrease Statement:			1.389	2.456	-

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army			Date: June 2025		
Appropriation/Budget Activity 2040 / 3		R-1 Program Element (Number/Name) PE 0603462A / <i>Next Generation Combat Vehicle Advanced Technology</i>		Project (Number/Name) BG7 / <i>Ground Systems Active Defense (GSAD) Advanced Tech</i>	
B. Accomplishments/Planned Programs (\$ in Millions)			FY 2024	FY 2025	FY 2026
Funding decrease reflects planned completion of this effort.					
Title: APS Residuals Protection Maturation and Complex Threat Attack Protection (CTAP)			9.471	6.735	-
Description: This effort contributes to the Army's ground vehicle survivability by maturing, integrating, and demonstrating advanced technologies which physically defeat incoming threats. These technologies involve passive and reactive mechanisms that work seamlessly with active protection systems in order to increase the overall efficiency of the system. This effort will mature and demonstrate armor components that defeat residual blast and fragmentation from hard-kill active protection systems engagements with kinetic threats in order to protect vehicle occupants and critical subsystems. This effort also matures and demonstrates armor and occupant protection components that provide threat defeat for advanced and emerging threats with complex defeat mechanisms.					
FY 2025 Plans: Will build upon prior year's work, at the system level for demonstration, to integrate packaged component designs for protection against advanced and emerging threats which employ complex defeat mechanisms. Will mature and optimize designs through integrated system-level environmental and automotive durability testing, followed by ballistic testing, to validate performance against system-level requirements. Will validate compliance with the Modular Active Framework. Will provide capstone demonstrations of capabilities against pacing threat defeat in a relevant environment.					
FY 2025 to FY 2026 Increase/Decrease Statement: Funding decrease reflects completion in accordance with the project plan. Funding realigned to task, Next Generation Adaptive Armor (NGAA)					
Title: Controls and Architecture			5.560	2.565	-
Description: This effort provides the basis for holistic (vehicle level) active defense by ensuring compatibility of active defense subsystems and systems. This effort matures and demonstrates the effectiveness and efficiency of the controls and architecture for active defense systems. The focus will be to enable the integration of multiple emerging survivability technologies into safe and secure configurations. This effort will optimize size, weight, and power - cooling (SWaP-C) performance for the system components.					
FY 2025 Plans: Will complete laboratory demonstration and transition deliverables to program office. Will document designs for advancements of next phase of active defense technologies.					
FY 2025 to FY 2026 Increase/Decrease Statement:					

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army			Date: June 2025		
Appropriation/Budget Activity 2040 / 3		R-1 Program Element (Number/Name) PE 0603462A / <i>Next Generation Combat Vehicle Advanced Technology</i>		Project (Number/Name) BG7 / <i>Ground Systems Active Defense (GSAD) Advanced Tech</i>	
B. Accomplishments/Planned Programs (\$ in Millions)			FY 2024	FY 2025	FY 2026
The funding decrease reflects completion in accordance with the project plan and transition of layered survivability technologies.					
Title: Hard Kill Active Protection System (HK APS) Development, Integration, and Demonstration			16.076	19.809	15.323
<p>Description: This effort matures, integrates, and demonstrates a HK APS capable of defeating Rocket Propelled Grenades (RPGs), Anti-Tank Guided Missiles, and Recoilless Rifles ensuring the platform's ability to shoot, move and communicate after an engagement. The system will be compliant to the Modular APS Framework (MAF). This effort will optimize an HK APS that includes the following subsystems; counter-measure, launcher, and sensors (active/passive). Will demonstrate HK APS capabilities in a virtual and live fire demonstration in a relevant operational environment.</p> <p>Counter-measure (CM): Matures and demonstrates CM designs that includes the following aspects: blast size, time of flight, velocity, engagement distance, accuracy, and SWaP-C. Analysis will be conducted for each counter-measure component as well as at the sub-system level. Demonstrations will be performed in the following environments: virtual, hardware in the loop, and live fire.</p> <p>Launcher: Matures and demonstrates launcher designs that considers the following aspects: SWaP-C, engagement speed and accuracy, number of launchers, material composition and reliability. The most mature and suitable launcher for the project will be demonstrated in the following environments: virtual, hardware in the loop, and live fire.</p> <p>Sensors: Matures and demonstrates overall sensor suite design (active/passive) that considers the following aspects; radar frequency, power, weight, volume, algorithms, accuracy, search range, tracking and identification time, and passive cueing integration and optimization. The most mature and suitable sensor suite (active/passive) for the project will be demonstrated in the following environments: virtual, hardware in the loop, and live fire.</p> <p>Integration: Demonstrate the matured HK APS sub-systems on a platform in the following environments: virtual, hardware in the loop, and live fire. This will also analyze subsystem and system performance characteristics against Integrated Product Team (IPT) stakeholder requirements. Develop a performance baseline for future hard kill system evaluations.</p> <p>FY 2025 Plans: Will provide Interface Control Documents at the sub-system level, including those for the Countermeasure, Launcher, Fire Control Solution, and Radar. Will update the system-level Interface Control Document based on sub-system finalization completing the Final Design Review package in order to baseline the system architecture. Will develop radar subsystem components for integration and testing. Will conduct testing-validation and demonstration of Countermeasure sub-system capabilities.</p> <p>FY 2026 Plans:</p>					

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army			Date: June 2025		
Appropriation/Budget Activity 2040 / 3		R-1 Program Element (Number/Name) PE 0603462A / <i>Next Generation Combat Vehicle Advanced Technology</i>		Project (Number/Name) BG7 / <i>Ground Systems Active Defense (GSAD) Advanced Tech</i>	
B. Accomplishments/Planned Programs (\$ in Millions)			FY 2024	FY 2025	FY 2026
<p>Will conduct a developmental critical design review at the system level with industry and government experts. Will conduct sub-system testing demonstrations of, but not limited to, the countermeasure system, launcher and sensor to validate performance capabilities. Will conduct sub-system integration efforts with the fire control solution as well as the Vehicle Protection System (VPS) Base Kit (VBK) to complete Survivability Framework compliance. Will begin conducting Joint Services Software Safety Authority and Joint Services Weapons Safety Review Board assessments of the HK APS sub-systems.</p> <p>FY 2025 to FY 2026 Increase/Decrease Statement: Funding decrease is an economic assumption.</p>					
<p>Title: Integrated Signature Management</p> <p>Description: This effort provides the capability for ground vehicle systems to achieve increased standoff from threat system detection and targeting, enabling freedom of maneuver and the option to strike first, through the use of novel technology. This effort matures and demonstrates signature management technology that is integrated into the vehicle system, as opposed to ad hoc appliques that do not consider all other vehicle requirements. This effort will optimize a system level solution that considers size, weight, power consumption, and cost impacts to the platform. This effort will provide a demonstration of the improvement in signature management capability in an operationally-relevant environment.</p> <p>FY 2025 Plans: Will build upon FY2024 effort under 6221450A/BG6. Will mature selected component integrated signature management technologies transitioned from PE 0602145A/BG6 Advanced Concepts for Active Defense, by validating individual component performance and integrating the technologies into a physical system for preliminary design review. Will optimize system design through system-level modeling and simulation.</p> <p>FY 2026 Plans: Builds upon FY2025 effort by completing the hardened component designs and finalizing the integrated system-level demonstrator design for developmental critical design review. Will demonstrate and validate performance of the individual signature management technologies at the component-level when subjected to relevant operational environment conditions, to include MIL-STD-810 exposures.</p> <p>FY 2025 to FY 2026 Increase/Decrease Statement: Funding increase reflects funding realignment from Project Element (PE) 0602145A / BG6 Advanced Concepts for Active Defense Technology to focus on maturing the signature management technology.</p>			-	0.942	1.163
<p>Title: Next Generation Adaptive Armor</p> <p>Description: This effort will integrate products developed in PE 0602145A/BG6 - Adaptive and Cooperative Protection and sensors from the 0603462A/BG7 - Sensor for Adaptive Armor to develop an Adaptive Armor System to defeat pacing and</p>			-	-	5.910

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army			Date: June 2025		
Appropriation/Budget Activity 2040 / 3		R-1 Program Element (Number/Name) PE 0603462A / <i>Next Generation Combat Vehicle Advanced Technology</i>		Project (Number/Name) BG7 / <i>Ground Systems Active Defense (GSAD) Advanced Tech</i>	
B. Accomplishments/Planned Programs (\$ in Millions)			FY 2024	FY 2025	FY 2026
emerging threats. Throughout this effort, trade analysis will be completed to examine new countermeasures and integration; design and build hardware and conduct component and system level demonstrations. At the end of the effort the final deliverables are a survivability framework compliant adaptive armor solution that is complimentary with a layered survivability architecture.					
FY 2026 Plans: Will develop and document program requirements and hold software requirements review. Will down select candidate countermeasures. Will develop multiple initial integration designs and perform trade studies and integration analysis consulting with our stakeholders. Will fabricate and integrate components required for system development and conduct evaluation.					
FY 2025 to FY 2026 Increase/Decrease Statement: Funding increase reflects funding realignment within this project to focus on integrating technologies and incorporating them into the Survivability framework to support Ground Vehicle formations.					
Title: Collaborative Defense			-	-	5.630
Description: This effort expands the capability to protect ground vehicles by developing and demonstrating technologies that can enable the sharing of protection resources across multiple platforms in real time to expand the zone of protection on the battlefield beyond a single vehicle and its protection system. These technologies include sensors to identify and track incoming threats, networks to allow local communication of threat detection and tracking information, and effectors that interdict to disrupt or destroy threats before terminal engagement with the platform. This effort will optimize a system-level integration of the aforementioned technologies within the survivability framework to enable collaboration across multiple vehicles in a small unit, including integration factors such as size, weight, power consumption, and cost impacts to the platform. This effort will provide a demonstration of the collaborative defense capability in an operationally relevant environment.					
FY 2026 Plans: Will leverage prior research from 0602145A, Next Generation Combat Vehicle Technology /BG6 - Collaborative Defense to mature physical, electrical, and software designs, and package the selected individual component technologies that comprise the system in preparation for environmental, durability and performance validation. Will provide updates to the system architecture design model, control software, as well as the physical system integration design to prepare for full-system sample build.					
FY 2025 to FY 2026 Increase/Decrease Statement: This funding increase is a shift in focus from the 0602145A, Next Generation Combat Vehicle Technology /BG6 - Collaborative Defense research to developing the selected technologies.					
Accomplishments/Planned Programs Subtotals			56.229	51.960	42.024

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army		Date: June 2025
Appropriation/Budget Activity 2040 / 3	R-1 Program Element (Number/Name) PE 0603462A / Next Generation Combat Vehicle Advanced Technology	Project (Number/Name) BG7 / Ground Systems Active Defense (GSAD) Advanced Tech
C. Other Program Funding Summary (\$ in Millions) N/A		
Remarks		
D. Acquisition Strategy N/A		

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army										Date: June 2025		
Appropriation/Budget Activity 2040 / 3					R-1 Program Element (Number/Name) PE 0603462A / Next Generation Combat Vehicle Advanced Technology				Project (Number/Name) BH6 / Platform Electrification and Mobility Adv Tech			
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
BH6: Platform Electrification and Mobility Adv Tech	-	66.043	11.003	7.630	-	7.630	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		
A. Mission Description and Budget Item Justification												
<p>This Project matures, integrates and demonstrates high power technologies for manned and unmanned Next Generation Combat Vehicle (NGCV) platforms. High power technologies will enable advanced on-board power-based payloads such as directed energy weapons, and provide new capabilities such as improved acceleration, extended silent mobility and silent watch. This Project will also mature, integrate and demonstrate technologies to increase on-board vehicle power such as a high voltage/temperature generator and high power, high temperature electronics as well as technologies to reduce power demands including composite rubber band track and adaptive hydro-strut suspension.</p> <p>This Project matures, integrates and demonstrates energy storage technologies and addresses associated supply chain challenges to enable domestic suppliers. This Project also continues work leveraging the Department of Energy and the Department of Defense with a focus on energy storage, providing an emphasis on developing advanced technologies that enable military ground vehicles to improve platform mobility and lethality.</p> <p>Work in this Project complements Program Element (PE) 0602145A (Next Generation Combat Vehicle Technology) / Project BH5 (Platform Electrification and Mobility Tech).</p> <p>The cited work is consistent with the Under Secretary of Defense for Research and Engineering priority focus areas and the Army modernization strategy.</p> <p>Work in this Project is performed by the Ground Vehicle System Center (GVSC).</p>												
B. Accomplishments/Planned Programs (\$ in Millions)									FY 2024	FY 2025	FY 2026	
Title: Platform Electrification Technologies									13.303	-	-	
Description: This effort matures and integrates components and sub-systems in order to demonstrate a modular electrification architecture that scales across light to heavy weight classes of combat vehicles.												
Title: System/Vehicle Integration and Test									8.731	2.148	-	
Description: This effort integrates advanced mobility, platform electrification components and electrification architecture technologies into surrogate platforms and demonstrates the performance, scalability and modularity of the system approach which will provide the capabilities of silent mobility, improved mobility performance, improved operational duration without re-supply, and provides power to enable integration of advanced protection, lethality and network capabilities.												

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army			Date: June 2025		
Appropriation/Budget Activity 2040 / 3		R-1 Program Element (Number/Name) PE 0603462A / Next Generation Combat Vehicle Advanced Technology	Project (Number/Name) BH6 / Platform Electrification and Mobility Adv Tech		
B. Accomplishments/Planned Programs (\$ in Millions)			FY 2024	FY 2025	FY 2026
FY 2025 Plans: Will demonstrate silent operation extension technology in the system level integration lab.					
FY 2025 to FY 2026 Increase/Decrease Statement: Funding decrease reflects efforts to foster innovation and accelerate deployment of promising technology in support of alignment with congressional priorities.					
Title: Battery Technologies for Supply Chain Security Description: This effort researches technologies that mitigate battery supply chain security issues as it relates to common military form factors that are critical to military ground vehicle hybridization and other Army battery applications. This effort is part of a coordinated effort to conduct assessments of technologies across the Defense Advanced Battery Supply Chain along with DoD battery technology projects in PEs 0603342D8Z, 0605798D8Z, 0603680D8Z, 0607210D8Z, 0605805Z, 0603724N, and 0901212N. This effort matures and demonstrates an import/export power capability that will allow combat vehicles to interface with the existing electrical grid in a compact, highly efficient package that is installed and carried in the vehicle. It will also support interfacing to microgrid hardware for dispersed operations and flexible power on the battlefield. This investment would reduce fuel consumption and increase operational range, furthering the enhancement of improved vehicle operation within a contested environment and towed power generation.			16.249	8.855	4.723
FY 2025 Plans: Continue to exploit the Li-ion 6T, Small Tactical Universal Battery (STUB), Conformal Wearable Battery (CWB), and BB2590 form factor to cultivate new applications for this technology to increase standardization and volume to and reduce costs. Optimize the vehicle import/export power system for power density and further compatibility with the grid and microgrid systems.					
FY 2026 Plans: Will address supply chain deficiencies for the Li-ion 6T and other standard batteries by cultivating additional battery vendor technologies for to enable improved competition and a stronger supply base; exploit Department of Energy (DOE) investment to develop alternative material and cell suppliers for Li-ion 6T and other ground vehicle battery systems; mature and demonstrate approaches to safely integrate the Li-ion 6T and Modular high voltage battery to accelerate the fielding of these technologies to improve vehicle performance while reducing logistics.					
FY 2025 to FY 2026 Increase/Decrease Statement: Funding decrease is due to more focused supply chain investment.					
Title: Tactical and Wheeled Vehicles Hybrid Electric System			5.626	-	-

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army			Date: June 2025		
Appropriation/Budget Activity 2040 / 3		R-1 Program Element (Number/Name) PE 0603462A / Next Generation Combat Vehicle Advanced Technology		Project (Number/Name) BH6 / Platform Electrification and Mobility Adv Tech	
B. Accomplishments/Planned Programs (\$ in Millions)			FY 2024	FY 2025	FY 2026
Description: This effort is part of the climate change initiative to reduce vehicle platform carbon emissions through development of hybrid electric, anti-idle and multi-vehicle power networking capabilities for tactical and wheeled platforms.					
Title: Combat Vehicle Hybrid Electric Capability Demonstration Description: This effort is part of the climate change initiative to reduce vehicle platform carbon emissions through development and demonstration of hybrid electric and battery dominant vehicles. This effort matures technology to perform rapid recharging of electric vehicles in battlefield environments. This effort demonstrates capabilities applicable to both wheeled tactical vehicles and tracked combat vehicles.			8.550	-	-
Title: Advanced Running Gear and Suspension System Technology Description: This effort matures, integrates, and demonstrates an advanced track and suspension system for heavy combat vehicle applications which offers significantly reduced system weight, maintenance, noise and vibration over conventional systems as well as increased operational effectiveness on- and off-road for improved mobility in austere environments with reduced power requirements. FY 2026 Plans: Will mature track and suspension components for heavy combat applications; will improve vehicle height changes through suspension system spring adjustment, while augmenting vehicle performance with switchable damping. FY 2025 to FY 2026 Increase/Decrease Statement: Funding increase reflects planned lifecycle of this effort to accommodate heavy combat applications.			-	-	2.907
Title: Advanced Mobility Technologies Description: This effort matures and demonstrates a reduced weight composite running gear system for medium combat vehicle applications which increases operational effectiveness and reduces fuel consumption.			1.658	-	-
Title: Advanced Vehicle Power Technology Alliance - Electrification Technology Description: This effort matures and develops advanced energy storage technologies to improve power and energy performance and safety for vehicles. Higher energy stored with less space and weight increases vehicle efficiency and range. Ensures electrified ground vehicles have enough power for mobility, silent watch, and enables capabilities such as advanced protection, lethality and network capabilities. This effort is a partnership with the Department of Energy.			2.347	-	-
Title: Scalable Electrification & Control Architecture Technology			4.121	-	-

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army		Date: June 2025	
Appropriation/Budget Activity 2040 / 3	R-1 Program Element (Number/Name) PE 0603462A / <i>Next Generation Combat Vehicle Advanced Technology</i>	Project (Number/Name) BH6 / <i>Platform Electrification and Mobility Adv Tech</i>	
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2024	FY 2025
Description: This effort validates component-level performance and integrates the power distribution and control components to implement a common, scalable, electrified vehicle power architecture to enable analyze layered survivability technologies, high voltage batteries, fast vehicle charging from the grid, and silent mobility on combat platforms from 15 to 50 tons.			
Title: Robotic Combat Vehicle Silent Watch and Mobility Range Extension Advanced Technology Description: This effort matures and demonstrates JP8 reformer components and sub-systems that provide extended silent watch and mobility as part of a modular electrification architecture supporting robotic combat vehicles. The Army's robotic combat vehicles are expected to have increased silent watch and silent mobility requirements that are not met by current technologies.		3.458	-
Title: Rapid Fielding of Supply Chain Secure Type 1B-90 Li-ion 6T Batteries (1B90 6Ts) Description: This effort rapidly fields a Type 1B-90 battery which has the highest safety and performance of any Li-ion 6T variant. Li-ion 6Ts provide increased energy, significantly extended cycle life, and faster recharge enabling improved vehicle performance, but there is a need to ensure a secure supply chain for these batteries.		2.000	-
Accomplishments/Planned Programs Subtotals		66.043	11.003
C. Other Program Funding Summary (\$ in Millions)			
N/A			
Remarks			
D. Acquisition Strategy			
N/A			

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army										Date: June 2025		
Appropriation/Budget Activity 2040 / 3					R-1 Program Element (Number/Name) PE 0603462A / Next Generation Combat Vehicle Advanced Technology				Project (Number/Name) BH8 / Enhanced VETRONICS Advanced Technology			
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
BH8: Enhanced VETRONICS Advanced Technology	-	10.268	13.867	5.038	-	5.038	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This Project matures, integrates, and demonstrates vehicle electronics hardware such as computers, sensors, communications systems, displays, and vehicle command/control/driving mechanisms as well as vehicle software to enhance crew performance, increase vehicle fuel efficiency, reduce Size, Weight, and Power (SWaP) burdens and reduce vehicle maintenance costs. This Project is a collaborative work between Army laboratories and centers and private industry in effort to advance open system data architectures for military ground vehicles to enable common interfaces, standards and hardware implementations. This will align Program Executive Office Ground Combat Systems (PEO-GCS's) Common Infrastructure Architecture (GCIA) with current combat platform modernization efforts and inform future GCIA iterations. The overall vehicle system architecture approach provides an open architecture to allow platforms and industry partners to accept future technologies without the need for significant re-design as new technologies are developed and integrated. This architecture will provide the interfaces and capabilities necessary to transmit data and power across vehicle subsystems and to dismounted equipment. Additionally, this project matures infrastructure that enables the ease of integration of autonomous subsystem technologies into future and existing tactical and combat vehicle architectures. Technical challenges include software and algorithm development for increased levels of automation for both manned and unmanned systems, secure vehicle data networks, interoperability of intra-vehicle and inter-vehicle systems, and implementation of advanced user interfaces. Overcoming these technical challenges enables improved and increased span of collaborative vehicle operations, efficient workload management, commander's decision aids, embedded simulation for battlefield visualization and fully integrated virtual test and evaluation.

Work in this Project is coordinated with Program Element (PE) 0602145A (Next Generation Combat Vehicle Technology).

The cited work is consistent with the Under Secretary of Defense for Research and Engineering priority focus areas and the Army modernization strategy.

Work in this Project is performed by the Ground Vehicle Systems Center (GVSC).

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2024	FY 2025	FY 2026
Title: Enhanced - Vehicle Electronics (E-Vetronics)	10.268	13.867	5.038
Description: This effort addressed technical and integration challenges in the areas of vehicle architecture and systems integration. Specifically, this effort focused on maturing and demonstrating a common ground vehicle open architecture with distributed display processing architecture, computing hardware capable of being re-configured to adapt to changes in Input/Output (I/O) needs, advanced network video distribution, advancements in slip ring technology, tactical situational awareness (SA), cooperative engagement and mission package integration through open architecture components and software. These			

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army			Date: June 2025		
Appropriation/Budget Activity 2040 / 3		R-1 Program Element (Number/Name) PE 0603462A / <i>Next Generation Combat Vehicle Advanced Technology</i>		Project (Number/Name) BH8 / <i>Enhanced VETRONICS Advanced Technology</i>	
B. Accomplishments/Planned Programs (\$ in Millions)			FY 2024	FY 2025	FY 2026
efforts enabled future vehicle capabilities, reduced dependencies on proprietary solutions, and supported increased market competition through open architecture components and software. This effort created the electronics architecture for future ground combat vehicles to enable software and hardware commonality and reduce system integration timing and cost.					
FY 2025 Plans: Mature and demonstrate key network functions within the common on-vehicle network architecture; demonstrate an integrated Ground Combat Systems (GCS) Common Infrastructure Architecture (GCIA) instantiation to validate an implementation of GCIA hardware and software; optimize the ground vehicle common architecture to Technology Readiness Level (TRL) 6 for incremental transition to PEO GCS for refinement of the GCIA architecture; initiate the maturation of the architecture to address further capabilities such as cyber, on-board high-performance computing for artificial intelligence (AI), and thermally efficient electronics.					
FY 2026 Plans: Will leverage industry collaboration to optimize high performance computer processing and build upon the integrated GCIA instantiation to improve sensor information sharing and investigate automation of sensor processing; to support emerging artificial intelligence (AI) intensive capabilities such as autonomous mobility, aided targeting, identification, and recognition, active protection, and multi-sensor fusion; Matures the ground vehicle common architecture for incremental transition to PEO GCS for refinement of the GCIA architecture.					
FY 2025 to FY 2026 Increase/Decrease Statement: Funding decrease reflects realignment to Program Element (PE) 0603275A (Electronic Warfare Advanced Technology) / Project A73 (Enhanced VETRONICS Advanced Technology) as a part of the Department of Defense Capability Based (Agile) Funding pilot, which provides enhanced capabilities by fostering innovation and accelerated deployment of promising technology.					
Accomplishments/Planned Programs Subtotals			10.268	13.867	5.038
C. Other Program Funding Summary (\$ in Millions)					
N/A					
Remarks					
D. Acquisition Strategy					
N/A					

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army										Date: June 2025		
Appropriation/Budget Activity 2040 / 3					R-1 Program Element (Number/Name) PE 0603462A / Next Generation Combat Vehicle Advanced Technology				Project (Number/Name) BI3 / Sensor Protection Advanced Technology			
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
BI3: Sensor Protection Advanced Technology	-	1.703	1.752	1.029	-	1.029	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		
A. Mission Description and Budget Item Justification												
<p>This Project matures and demonstrates novel sensor protection capabilities which dramatically reduce the susceptibility of our thermal electro-optic/infrared (EO/IR) sensors to ever increasing threats on the battlefield. This Project enables continuation of the mission despite potential threat laser engagements. Low-cost modular solutions will be demonstrated that can be applied across current and planned EO/IR targeting, surveillance, and situational awareness sensor systems against existing and emerging threats in support of combined arms maneuver.</p> <p>Research in this Project is coordinated with Program Element (PE) 0602145A (Next Generation Combat Vehicle Technology), 0602143A (Soldier Lethality Technology), 0603465A (Future Vertical Lift Advanced Technology) and 0603118A (Soldier Lethality Advanced Technology).</p> <p>The cited research is consistent with the Under Secretary of Defense for Research and Engineering priority focus areas and the Army Modernization Strategy. Research in this Project supports the Army Modernization Priorities.</p> <p>Work in this Project is performed by the Command, Control, Computers, Communications, Cyber, Intelligence, Surveillance and Reconnaissance (C5ISR) Center</p>												
B. Accomplishments/Planned Programs (\$ in Millions)									FY 2024	FY 2025	FY 2026	
Title: Sensor Protection Advanced Technology									1.703	1.752	1.029	
Description: This effort will mature and demonstrate sensor protection and signature reduction capabilities which better ensure sensors are difficult to detect, dazzle, and damage by current and future laser threats.												
FY 2025 Plans: Will mature, demonstrate, and deliver high transmission in-dewar optics with advanced coatings for improved performance and signature management. Will optimize laser ID algorithm to detect a laser incident and automatically select or tune a filter to provide protection.												
FY 2026 Plans: Will optimize automatic selectable filter for high-performance infrared (IR) sensors; will demonstrate TRL6 laser ID algorithm with an automatic selectable filter on a current high-performance forward looking IR system.												
FY 2025 to FY 2026 Increase/Decrease Statement:												

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army		Date: June 2025		
Appropriation/Budget Activity 2040 / 3	R-1 Program Element (Number/Name) PE 0603462A / Next Generation Combat Vehicle Advanced Technology	Project (Number/Name) BI3 / Sensor Protection Advanced Technology		
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2024	FY 2025	FY 2026
Funding decrease reflects funding realignment to Program Element (PE) 0603462A (Next Generation Combat Vehicle Advanced Technology) / Project BF4 (Combat Vehicle Robotics Adv Tech) to support Human-Machine Integrated Formations (H-MIF)				
Accomplishments/Planned Programs Subtotals		1.703	1.752	1.029
C. Other Program Funding Summary (\$ in Millions) N/A				
Remarks				
D. Acquisition Strategy N/A				

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army										Date: June 2025		
Appropriation/Budget Activity 2040 / 3					R-1 Program Element (Number/Name) PE 0603462A / Next Generation Combat Vehicle Advanced Technology				Project (Number/Name) B15 / Materials Application and Integration Adv Tech			
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
BI5: Materials Application and Integration Adv Tech	-	4.202	-	-	-	-	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This Project matures, integrates, and demonstrates lightweight novel materials, integrated computational materials engineering methods, and new manufacturing processes and methodologies. These materials and technologies enable the Army to address critical areas of survivability, mobility, and transportability within the Next Generation Combat Vehicle (NGCV).

This Project also continues the efforts originally started under Advanced Vehicle Power Technology Alliance (AVPTA) between the Department of Energy and the Department of the Army with a focus on developing advanced materials technologies that enable military ground vehicles to become significantly more energy efficient. The AVPTA, though no longer chartered, has developed a relationship between DoE and DA that continues to accelerate the conceptualization and transition to deployment of inventive and creative energy-saving concepts that the Nation needs to achieve energy security. In support of lighter military vehicles which are more fuel-efficient and capable in expeditionary scenarios, this project will mature and integrate lightweight materials and joining technologies to provide superior mobility and protection of both vehicles and occupants.

Research in this Project is coordinated with Program Element (PE) 0602145A (Next Generation Combat Vehicle Technology).

The cited research is consistent with the Under Secretary of Defense for Research and Engineering priority focus areas and the Army Modernization Strategy.

Work in this Project is performed by the Ground Vehicle System Center (GVSC)

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2024	FY 2025	FY 2026
Title: System Design Optimization for Lightweighting	3.435	-	-
Description: This effort improves technologies, tools, and advanced manufacturing techniques in support of the Army's mission to increase mobility, protection, and transportability while reducing weight. This effort focuses on maturing and demonstrating technologies to decrease ground vehicle weight while optimizing performances and enabling the Army trade space for enhanced capabilities. The technologies being demonstrated are in the fields of material maturation, design optimization, operational metrics, joining technologies, and additive manufacturing.			
Title: Advanced Vehicle Power Technology Alliance - Materials	0.767	-	-

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army		Date: June 2025		
Appropriation/Budget Activity 2040 / 3	R-1 Program Element (Number/Name) PE 0603462A / Next Generation Combat Vehicle Advanced Technology	Project (Number/Name) BI5 / Materials Application and Integration Adv Tech		
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2024	FY 2025	FY 2026
Description: This effort matures and demonstrates lightweight materials and joining technologies in support of lighter military vehicles which are more fuel-efficient and expeditionary with superior mobility and protection of both vehicles and occupants. Lighter materials/constructions and advances in joining technologies such as multi-material and dissimilar material joining will lead to lightweight military vehicle structures.				
Accomplishments/Planned Programs Subtotals		4.202	-	-
C. Other Program Funding Summary (\$ in Millions) N/A				
Remarks				
D. Acquisition Strategy N/A				

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army										Date: June 2025		
Appropriation/Budget Activity 2040 / 3					R-1 Program Element (Number/Name) PE 0603462A / Next Generation Combat Vehicle Advanced Technology				Project (Number/Name) BK1 / Autonomous Mobility Adv Tech			
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
BK1: Autonomous Mobility Adv Tech	-	5.305	3.860	-	-	-	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This Project matures and demonstrates data-based Artificial Intelligence and Machine Learning (AI/ML) technologies to increase autonomy and mobility and perform teamed operations with manned and unmanned air and ground vehicles in a military relevant environment through data collection on relevant platforms. Data collection will involve both simulation and live collection. Simulation will provide a baseline to correctly collect, clean, and analyze data that meets the need for improving algorithms for both formation control and unmanned aerial vehicle map input for unmanned ground vehicle mobility, while reducing costs. Live data will start with Surrogate platforms in local areas. The Project will use AI/ML techniques to mature and demonstrate intelligent formation control to be used in complex, off-road terrain without the need for a global positioning system (GPS). Data will be collected from mounted platforms utilizing sensors to improve algorithms for relative and absolute positioning, undistributed formation control, and increased speeds of unmanned platforms. The utility of the military-relevant data will be demonstrated through a datahub which is designed specifically for robotic data types, formats and sizes. The datahub infrastructure is a unique solution to handle such ground vehicle data needs and will be able to optimize the outcome of the collected data. Also, the Project will use AI/ML techniques to optimize intelligent autonomous ground platform planning team with Unmanned Aerial Systems (UAS). Data collected from air vehicles will be converted to maneuverable information for unmanned ground platforms with the identification of obstacles, go/no-go areas, terrain classification, and optimal suggested paths.

Research in this Project is coordinated with Program Element (PE) 0602145A (Next Generation Combat Vehicle Technology) / Projects BF3 (Combat Vehicle Robotics Tech) and BF4 (Combat Vehicle Robotics Adv Tech)

The cited research is consistent with the Under Secretary of Defense for Research and Engineering priority focus areas and the Army Modernization Strategy.

Work in this Project is performed by the Ground Vehicle System Center (GVSC)

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2024	FY 2025	FY 2026
Title: Machine Learning Data Collection	1.558	1.907	-
Description: This effort matures and demonstrates techniques and technologies for mass unmanned ground vehicle data collection to be used towards Army research in autonomy and mobility with machine learning efforts.			
FY 2025 Plans:			

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army		Date: June 2025		
Appropriation/Budget Activity 2040 / 3	R-1 Program Element (Number/Name) PE 0603462A / <i>Next Generation Combat Vehicle Advanced Technology</i>	Project (Number/Name) BK1 / <i>Autonomous Mobility Adv Tech</i>		
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2024	FY 2025	FY 2026
Will create and document detailed final report with results, conclusions, and recommendations in addition to data packages supporting potential ATP to transition partners. Will further collect and ingest maneuver data and customize datahub for hosting maneuver-relevant data. FY 2025 to FY 2026 Increase/Decrease Statement: Funding decrease reflects planned completion of this effort.				
Title: Formation Control Description: This effort uses ML techniques to develop intelligent formation control for manned and unmanned ground vehicles to be used on maintained roads and in contested environments under electronic warfare (EW) and GPS-denied conditions. Data will be collected from mounted platforms utilizing special internal and external sensors to develop and demonstrate algorithms for exact positioning, undistributed formation control, and increased speed. FY 2025 Plans: Will prepare and document results and conclusions including specifics for data collection and modeling for maneuver and formation control applications. FY 2025 to FY 2026 Increase/Decrease Statement: Funding decrease reflects planned completion of this effort.		3.747	1.953	-
Accomplishments/Planned Programs Subtotals		5.305	3.860	-
C. Other Program Funding Summary (\$ in Millions) N/A Remarks D. Acquisition Strategy N/A				

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army										Date: June 2025		
Appropriation/Budget Activity 2040 / 3					R-1 Program Element (Number/Name) PE 0603462A / <i>Next Generation Combat Vehicle Advanced Technology</i>				Project (Number/Name) BK4 / <i>Next Gen Intelligent Fire Control(NG-IFC) Adv Tech</i>			
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
BK4: <i>Next Gen Intelligent Fire Control(NG-IFC) Adv Tech</i>	-	4.170	-	-	-	-	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This Project will mature and demonstrate armament specific hardware, algorithms and architectures to support the Next Generation Combat Vehicle with the necessary fire control on future manned and unmanned platforms.

Research in this Project is related to and fully integrated with the efforts funded in Program Element (PE) 0602145A (Next Generation Combat Vehicle Technology).

The cited research is consistent with the Under Secretary of Defense for Research and Engineering priority focus areas and the Army Modernization Strategy. Research in this Project supports the Next Generation Combat Vehicle Army Modernization Priority.

Research in this Project is performed by the Armaments Center (AC)

B. Accomplishments/Planned Programs (\$ in Millions)	FY 2024	FY 2025	FY 2026
Title: Next Generation Intelligent Fire Control	2.243	-	-
Description: This effort will deliver armament specific hardware, algorithms and architectures to support the Next Generation Combat Vehicle with the necessary fire control on future manned and unmanned platforms.			
Title: Integration Compliant Fire Control Lethality Architecture	1.927	-	-
Description: This effort will deliver armament fire control hardware and software that will be compliant to integrate with Next Generation Combat Vehicle architecture for direct fire platforms.			
Accomplishments/Planned Programs Subtotals	4.170	-	-

C. Other Program Funding Summary (\$ in Millions)

N/A

Remarks

D. Acquisition Strategy

N/A

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army										Date: June 2025		
Appropriation/Budget Activity 2040 / 3					R-1 Program Element (Number/Name) PE 0603462A / Next Generation Combat Vehicle Advanced Technology				Project (Number/Name) BK6 / Adv Direct InDirect Armament Sys (ADIDAS) Adv Tech			
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
BK6: Adv Direct InDirect Armament Sys (ADIDAS) Adv Tech	-	0.779	6.370	10.927	-	10.927	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This Project matures and demonstrates technologies for large caliber direct fire light-weight armament systems that will exceed the current capability of 120 millimeter (mm) direct fire cannons and be optimized for future operational environment with cross-domain engagement capability. Specifically, this Project integrates and demonstrates technologies for rapid fire on-the-move at all elevations (direct & indirect), compact ammunition design with advanced ignition, advanced recoil mitigation to reduce impulse and allow integration onto lighter platforms, and automated ammunition handling and reloading. This Project also supports open architecture to enable supervised autonomy and remote operation and integrates intelligent fire control to address multi-domain targets from manned and unmanned platforms.

Work in this Project is related to and fully integrated with the efforts funded in Program Element (PE) 0602145A (Next Generation Combat Vehicle Technology) and PE 0604115A (Technology Maturation Initiatives).

Work in this Project complements Program Element (PE) 0602145A (Next Generation Combat Vehicle Technology) / Project BK5 (Adv Direct In-Direct Armament Sys (ADIDAS) Tech) and Program Element (PE) 0603464A (Long Range Precision Fires Advanced Technology) / Project CE9 (Armaments Advanced Technology).

The cited work is consistent with the Under Secretary of Defense for Research and Engineering priority focus areas and the Army modernization strategy. Work in this Project supports the Next Generation Combat Vehicle Army Modernization Priority.

Work in this Project is performed by the Armaments Center (AC)

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2024	FY 2025	FY 2026
Title: Large Caliber Armament System (LCAS)	0.779	-	-
Description: This effort matures and demonstrates a next generation, automated, lightweight 120-mm armament system design for Next Generation Combat Vehicle, providing tank-like lethality for light to medium-weight optionally manned platforms.			
Title: Advanced Lethality Armament System for Large Caliber Advanced Tech	-	6.370	7.436
Description: This effort demonstrates increased lethality solutions for current and future large caliber direct fire armament systems focused on exceeding performance of current 120mm direct fire weapons.			

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army			Date: June 2025		
Appropriation/Budget Activity 2040 / 3		R-1 Program Element (Number/Name) PE 0603462A / Next Generation Combat Vehicle Advanced Technology	Project (Number/Name) BK6 / Adv Direct InDirect Armament Sys (ADIDAS) Adv Tech		
B. Accomplishments/Planned Programs (\$ in Millions)			FY 2024	FY 2025	FY 2026
FY 2025 Plans: Will demonstrate large caliber direct fire cannon component level technologies that increase: lethality against armored targets, probability of hit, and rate of fire; demonstrate compatibility automated ammunition handling; provide improved logistics and platform supportability via improved automation technologies.					
FY 2026 Plans: Will mature and optimize large caliber direct fire component level technologies that increase armament system lethality, modularity and reliability; conduct demonstrations of technologies on relevant armament systems via live-fire; validate technologies for improved armament system logistics and supportability.					
FY 2025 to FY 2026 Increase/Decrease Statement: Funding increase reflects the planned live-fire demonstrations of large caliber direct fire component level technologies.					
Title: Breaching Technology for Combat Engineering Operations (AT-CEO)			-	-	3.491
Description: This effort matures and demonstrates remote and automated combat engineering technologies with assured safety & security across various delivery platforms and mechanisms to enhance effectiveness of complex maneuver support functions for resilient operations in contested environments.					
FY 2026 Plans: Will mature technologies to conduct combat engineer operations including terrain shaping and breaching and integrate into robotic demonstration test bed hardware; validate the technology interfaces within a modeling and simulation environment, to include hardware in the loop (HIL) demonstration to validate integration and system performance.					
FY 2025 to FY 2026 Increase/Decrease Statement: Funding increase reflects initiation of Breaching Technology for Combat Engineering Operations (AT-CEO). Funding realigned from Program Element (PE) PE 0603116A (Lethality Advanced Technology) / Project CID (Sensor to Shooter (STS) Advanced Technology) and from Program Element (PE) PE 0602144A (Ground Technology) Project DI7 (Environmental Security Resilience Tech).					
Accomplishments/Planned Programs Subtotals			0.779	6.370	10.927
C. Other Program Funding Summary (\$ in Millions)					
N/A					
Remarks					

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army		Date: June 2025
Appropriation/Budget Activity 2040 / 3	R-1 Program Element (Number/Name) PE 0603462A / Next Generation Combat Vehicle Advanced Technology	Project (Number/Name) BK6 / Adv Direct InDirect Armament Sys (ADIDAS) Adv Tech
D. Acquisition Strategy N/A		

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army										Date: June 2025		
Appropriation/Budget Activity 2040 / 3					R-1 Program Element (Number/Name) PE 0603462A / Next Generation Combat Vehicle Advanced Technology				Project (Number/Name) BP6 / Ground Vehicle Advanced Technology(CA)			
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
BP6: Ground Vehicle Advanced Technology(CA)	-	223.134	86.000	-	-	-	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note

Congressional Interest Item funding provided for Ground Vehicle Advanced Technology.

A. Mission Description and Budget Item Justification

Congressional Interest Item funding provided for Ground Vehicle Advanced Technology.

The cited work is consistent with the Under Secretary of Defense for Research and Engineering priority focus areas and the Army modernization strategy.

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2024	FY 2025
<i>Congressional Add:</i> Blast resistant fuel systems	2.500	-
<i>FY 2024 Accomplishments:</i> Congressional Interest Item funding provided for Blast resistant fuel systems		
<i>Congressional Add:</i> Chrome elimination and lethality for medium caliber ground weapons systems barrels	3.000	-
<i>FY 2024 Accomplishments:</i> Congressional Interest Item funding provided for Chrome elimination and lethality for medium caliber ground weapons systems barrels		
<i>Congressional Add:</i> Autonomous ground vehicle research	3.000	-
<i>FY 2024 Accomplishments:</i> Congressional Interest Item funding provided for Autonomous ground vehicle research		
<i>Congressional Add:</i> Human digital twin and human machine interaction	3.000	-
<i>FY 2024 Accomplishments:</i> Congressional Interest Item funding provided for Human digital twin and human machine interaction		
<i>Congressional Add:</i> Medium caliber hybrid composite barrel	3.000	-
<i>FY 2024 Accomplishments:</i> Congressional Interest Item funding provided for Medium caliber hybrid composite barrel		
<i>Congressional Add:</i> Augmented reality for denied environments	3.500	-

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army		Date: June 2025
Appropriation/Budget Activity 2040 / 3	R-1 Program Element (Number/Name) PE 0603462A / Next Generation Combat Vehicle Advanced Technology	Project (Number/Name) BP6 / Ground Vehicle Advanced Technology(CA)
B. Accomplishments/Planned Programs (\$ in Millions)	FY 2024	FY 2025
FY 2024 Accomplishments: Congressional Interest Item funding provided for Augmented reality for denied environments		
Congressional Add: Additive manufacturing of critical components FY 2024 Accomplishments: Congressional Interest Item funding provided for Additive manufacturing of critical components	5.000	-
Congressional Add: Advanced adhesives FY 2024 Accomplishments: Congressional Interest Item funding provided for Advanced adhesives	5.000	-
Congressional Add: Composite components for medium caliber armament systems FY 2024 Accomplishments: Congressional Interest Item funding provided for Composite components for medium caliber armament systems FY 2025 Plans: Congressional Interest Item funding provided for Composite components for medium caliber armament systems	5.000	10.000
Congressional Add: Highly engineered rotating components FY 2024 Accomplishments: Congressional Interest Item funding provided for Highly engineered rotating components	5.000	-
Congressional Add: Multi-national contested logistics system FY 2024 Accomplishments: Congressional Interest Item funding provided for Multi-national contested logistics system	5.000	-
Congressional Add: Titanium armor and joining techniques FY 2024 Accomplishments: Congressional Interest Item funding provided for Titanium armor and joining techniques	5.000	-
Congressional Add: Dual chemistry battery pack demonstration FY 2024 Accomplishments: Congressional Interest Item funding provided for Dual chemistry battery pack demonstration	5.000	-
Congressional Add: Hydrogen storage solution FY 2024 Accomplishments: Congressional Interest Item funding provided for Hydrogen storage solution	5.000	-
Congressional Add: Modular electric motors	5.000	4.000

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army		Date: June 2025
Appropriation/Budget Activity 2040 / 3	R-1 Program Element (Number/Name) PE 0603462A / Next Generation Combat Vehicle Advanced Technology	Project (Number/Name) BP6 / Ground Vehicle Advanced Technology(CA)
B. Accomplishments/Planned Programs (\$ in Millions)	FY 2024	FY 2025
FY 2024 Accomplishments: Congressional Interest Item funding provided for Modular electric motors		
FY 2025 Plans: Congressional Interest Item funding provided for Modular electric motors		
Congressional Add: Cybersecurity for autonomous ground vehicles	5.500	3.500
FY 2024 Accomplishments: Congressional Interest Item funding provided for Cybersecurity for autonomous ground vehicles		
FY 2025 Plans: Congressional Interest Item funding provided for Cybersecurity for autonomous ground vehicles		
Congressional Add: Autonomous vehicle mobility	5.500	-
FY 2024 Accomplishments: Congressional Interest Item funding provided for Autonomous vehicle mobility		
Congressional Add: Casting to additive manufacturing	6.000	-
FY 2024 Accomplishments: Congressional Interest Item funding provided for Casting to additive manufacturing		
Congressional Add: Digital Twin	7.000	-
FY 2024 Accomplishments: Congressional Interest Item funding provided for Digital Twin		
Congressional Add: Off-road maneuver	7.000	-
FY 2024 Accomplishments: Congressional Interest Item funding provided for Off-road maneuver		
Congressional Add: Maneuverable lightweight electric weight reducer	7.500	-
FY 2024 Accomplishments: Congressional Interest Item funding provided for Maneuverable lightweight electric weight reducer		
Congressional Add: Advanced nickel-cobalt alloy armor production	8.000	-
FY 2024 Accomplishments: Congressional Interest Item funding provided for Advanced nickel-cobalt alloy armor production		
Congressional Add: Lithium-ion batteries for military vehicles	8.000	-
FY 2024 Accomplishments: Congressional Interest Item funding provided for Lithium-ion batteries for military vehicles		
Congressional Add: Program increase	8.000	-
FY 2024 Accomplishments: Congressional Interest Item funding provided for Program increase		
Congressional Add: Virtual and physical prototyping	8.000	-

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army		Date: June 2025
Appropriation/Budget Activity 2040 / 3	R-1 Program Element (Number/Name) PE 0603462A / <i>Next Generation Combat Vehicle Advanced Technology</i>	Project (Number/Name) BP6 / <i>Ground Vehicle Advanced Technology(CA)</i>
B. Accomplishments/Planned Programs (\$ in Millions)		
	FY 2024	FY 2025
FY 2024 Accomplishments: Congressional Interest Item funding provided for Virtual and physical prototyping		
Congressional Add: Autonomous minefield clearance	8.134	5.000
FY 2024 Accomplishments: Congressional Interest Item funding provided for Autonomous minefield clearance		
FY 2025 Plans: Congressional Interest Item funding provided for Autonomous minefield clearance		
Congressional Add: Operational energy platform testing	10.000	-
FY 2024 Accomplishments: Congressional Interest Item funding provided for Operational energy platform testing		
Congressional Add: Synthetic graphite battery technology	10.000	-
FY 2024 Accomplishments: Congressional Interest Item funding provided for Synthetic graphite battery technology		
Congressional Add: Digital enterprise management for OMFV	10.000	-
FY 2024 Accomplishments: Congressional Interest Item funding provided for Digital enterprise management for OMFV		
Congressional Add: Silent watch hydrogen fuel cell	10.000	-
FY 2024 Accomplishments: Congressional Interest Item funding provided for Silent watch hydrogen fuel cell		
Congressional Add: Advanced materials applications	12.000	17.500
FY 2024 Accomplishments: Congressional Interest Item funding provided for Advanced materials applications		
FY 2025 Plans: Congressional Interest Item funding provided for Advanced materials applications		
Congressional Add: Advanced manufacturing center of excellence	12.500	-
FY 2024 Accomplishments: Congressional Interest Item funding provided for Advanced manufacturing center of excellence		
Congressional Add: Driver vision enhancement with sensor fusion technology	15.000	-
FY 2024 Accomplishments: Congressional Interest Item funding provided for Driver vision enhancement with sensor fusion technology		
Congressional Add: Predictive Maintenance System	2.000	-

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army		Date: June 2025
Appropriation/Budget Activity 2040 / 3	R-1 Program Element (Number/Name) PE 0603462A / <i>Next Generation Combat Vehicle Advanced Technology</i>	Project (Number/Name) BP6 / <i>Ground Vehicle Advanced Technology(CA)</i>

B. Accomplishments/Planned Programs (\$ in Millions)	FY 2024	FY 2025
<i>FY 2024 Accomplishments:</i> Congressional Interest Item funding provided for Predictive Maintenance System		
<i>Congressional Add:</i> autonomous vehicle mobility institute	-	1.500
<i>FY 2025 Plans:</i> Congressional Interest Item funding provided for autonomous vehicle mobility institute		
<i>Congressional Add:</i> CBRN autonomous operations	-	2.000
<i>FY 2025 Plans:</i> Congressional Interest Item funding provided for CBRN autonomous operations		
<i>Congressional Add:</i> Digital enterprise management for XM30	-	7.500
<i>FY 2025 Plans:</i> Congressional Interest Item funding provided for Digital enterprise management for XM30		
<i>Congressional Add:</i> HTPEM APU	-	5.000
<i>FY 2025 Plans:</i> Congressional Interest Item funding provided for HTPEM APU		
<i>Congressional Add:</i> Mesophase pitch-based synthetic graphite	-	7.000
<i>FY 2025 Plans:</i> Congressional Interest Item funding provided for Mesophase pitch-based synthetic graphite		
<i>Congressional Add:</i> operational energy testing	-	5.000
<i>FY 2025 Plans:</i> Congressional Interest Item funding provided for operational energy testing		
<i>Congressional Add:</i> Silent mobility vehicle cooling	-	8.000
<i>FY 2025 Plans:</i> Congressional Interest Item funding provided for Silent mobility vehicle cooling		
<i>Congressional Add:</i> Virtual prototyping of ground-air vehicle formations	-	10.000
<i>FY 2025 Plans:</i> Congressional Interest Item funding provided for Virtual prototyping of ground-air vehicle formations		
Congressional Adds Subtotals	223.134	86.000

C. Other Program Funding Summary (\$ in Millions)
N/A

Remarks

D. Acquisition Strategy
N/A

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army										Date: June 2025		
Appropriation/Budget Activity 2040 / 3					R-1 Program Element (Number/Name) PE 0603462A / Next Generation Combat Vehicle Advanced Technology				Project (Number/Name) BZ9 / Smart Targeting Environment for Lower Level Assets			
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
BZ9: Smart Targeting Environment for Lower Level Assets	-	4.318	4.206	-	-	-	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		
A. Mission Description and Budget Item Justification												
This Project matures and demonstrates mission targeting support software and algorithms, to include Electronic Warfare capabilities, leveraged from the Defense Advanced Research Project Agency (DARPA) System-of-System Enhanced Small Unit (SESU), current force, and Science and Technology (S&T) in order to enable small units to continuously build and share targeting data and access strike assets in multi-domain operations.												
The cited research is consistent with the Under Secretary of Defense for Research and Engineering priority focus areas and the Army Modernization Strategy. Research in this Project supports the Next Generation Combat Vehicle Army Modernization Priority.												
Work in this Project is performed by the Command, Control, Computers, Communications, Cyber, Intelligence, Surveillance, and Reconnaissance (C5ISR) Center.												
B. Accomplishments/Planned Programs (\$ in Millions)									FY 2024	FY 2025	FY 2026	
Title: Small Targeting Environment for Lower Level Assets (STELLA)									4.318	4.206	-	
Description: This effort matures and demonstrates integrated target search and electronic warfare data dissemination algorithms to speed the overall targeting process. This improved process will utilize automated target search algorithms based on mission parameters to reduce processing time and interface with systems for detecting concealed targets and setting target priority. It will fuse local data processing and payload data to increase accuracy for target engagement, optimize data dissemination algorithms based on local network conditions, and streamline interfaces for small units to access joint strike assets.												
FY 2025 Plans: Will demonstrate novel mission planning approaches leveraging real-time situational awareness of the battlespace. Will provide software demonstration of initial threat alert concept using simulation data.												
FY 2025 to FY 2026 Increase/Decrease Statement: Funding change reflects planned conclusion of this effort.												
Accomplishments/Planned Programs Subtotals									4.318	4.206	-	
C. Other Program Funding Summary (\$ in Millions)												
N/A												

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army		Date: June 2025
Appropriation/Budget Activity 2040 / 3	R-1 Program Element (Number/Name) PE 0603462A / Next Generation Combat Vehicle Advanced Technology	Project (Number/Name) BZ9 / Smart Targeting Environment for Lower Level Assets
C. Other Program Funding Summary (\$ in Millions)		
Remarks		
D. Acquisition Strategy		
N/A		

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Army										Date: June 2025		
Appropriation/Budget Activity 2040: Research, Development, Test & Evaluation, Army / BA 3: Advanced Technology Development (ATD)					R-1 Program Element (Number/Name) PE 0603463A / Network C3I Advanced Technology							
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
Total Program Element	-	214.351	142.224	78.539	-	78.539	-	-	-	-	-	-
AM7: Modular RF Communications Advanced Technology	-	-	1.993	2.417	-	2.417	-	-	-	-	-	-
AM9: Protected SATCOM Advanced Technology	-	13.663	5.511	10.612	-	10.612	-	-	-	-	-	-
AN4: Non Traditional Waveforms Advanced Technology	-	5.130	17.488	7.797	-	7.797	-	-	-	-	-	-
AN8: COE - Every Receiver is a Sensor Advanced Tech	-	6.374	5.480	-	-	-	-	-	-	-	-	-
AO1: UNT - Every Receiver is a Sensor Advanced Tech	-	3.054	4.179	3.494	-	3.494	-	-	-	-	-	-
AO7: EW for Maneuver Operations (EMO) Adv Tech	-	3.106	-	-	-	-	-	-	-	-	-	-
AQ5: Sensor CE-Integrated Sensor Architecture Adv Tech	-	1.933	-	-	-	-	-	-	-	-	-	-
AQ8: High Tempo Data Driven Decision Tools Adv Tech	-	27.083	3.791	18.218	-	18.218	-	-	-	-	-	-
AT8: Network-Enabled GeoSpatial-GEOINT Services AdvTech	-	4.586	3.764	6.194	-	6.194	-	-	-	-	-	-
AU1: Tactical GeoSpatial Information Capabilities ATech	-	2.035	2.722	3.422	-	3.422	-	-	-	-	-	-
AU4: Geospatially Enabled Operational Design Adv Tech	-	10.888	10.813	3.491	-	3.491	-	-	-	-	-	-
AV8: Navigation Warfare (NAVWAR) Advanced Technology	-	5.900	3.988	-	-	-	-	-	-	-	-	-

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Army										Date: June 2025			
Appropriation/Budget Activity					R-1 Program Element (Number/Name)								
2040: Research, Development, Test & Evaluation, Army / BA 3: Advanced Technology Development (ATD)					PE 0603463A / Network C3I Advanced Technology								
AW6: Modular GPS Independent Sensors Advanced Tech	-	8.298	11.282	4.923	-	4.923	-	-	-	-	-	-	
BP4: ELECTRONIC WARFARE ADVANCED TECHNOLOGIES (CA)	-	94.000	47.800	-	-	-	-	-	-	-	-	-	
CI7: Mobile & Survivable Command Post (MASCP) Adv Tech	-	15.731	9.978	11.491	-	11.491	-	-	-	-	-	-	
CJ8: Assured PNT Communications Advanced Tech	-	11.563	13.435	5.145	-	5.145	-	-	-	-	-	-	
DB6: Pathfinder 3D Advanced Technology	-	1.007	-	1.335	-	1.335	-	-	-	-	-	-	

A. Mission Description and Budget Item Justification

This Program Element (PE) matures and demonstrates technologies to provide an Army tactical network and enabling infrastructure that support operations in any environment, to include where the electromagnetic spectrum is denied or degraded. This is accomplished through the exploitation and optimization of components and systems for robust, low signature communications and data networks; assured positioning, navigation, and timing in contested environments; converged and coordinated cyber and electronic warfare activities; resilient mission command on the move; and the collection, processing, and dissemination of information for intelligence, surveillance, and reconnaissance in a common operating picture.

Work in this PE complements PE 0602146A (Network C3I Technology), PE 0602143A (Soldier Lethality Technology), PE 0602145A (Next Generation Combat Vehicle Technology), PE 0602147A (Long Range Precision Fires Technology), PE 0602148A (Future Vertical Lift Technology), PE 0602150A (Air and Missile Defense Technology), PE 0602213A (C3I Applied Cyber), PE 0603118A (Soldier Lethality Advanced Technology), PE 0603462A (Next Generation Combat Vehicle Advanced Technology), PE 0603464A (Long Range Precision Fires Advanced Technology), PE 0603465A (Future Vertical Lift Advanced Technology), and PE 0603466A (Air and Missile Defense Advanced Technology).

This PE is directly aligned with the Network and Assured Positioning, Navigation, and Timing (APNT) Army Modernization priorities.

The cited research is consistent with the Under Secretary of Defense for Research and Engineering priority focus areas and the Army Modernization Strategy.

Research is performed by the U.S. Army Engineer Research and Development Center (ERDC).

The FY 2026 request was reduced by \$6.818 million for Advisory and Assistance Services to promote efficiencies and advance the policies of the Administration in alignment with Executive Order 14222, "Implementing the President's Department of Government Efficiency Cost Efficiency Initiative."

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Army			Date: June 2025		
Appropriation/Budget Activity 2040: Research, Development, Test & Evaluation, Army / BA 3: Advanced Technology Development (ATD)		R-1 Program Element (Number/Name) PE 0603463A / Network C3I Advanced Technology			
The FY 2026 request was reduced by \$0.444 million for civilian personnel to optimize the workforce in compliance with Executive Order 14210, "Implementing the President's Department of Government Efficiency Workforce Optimization Initiative."					
B. Program Change Summary (\$ in Millions)	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total
Previous President's Budget	105.549	94.424	116.536	-	116.536
Current President's Budget	214.351	142.224	78.539	-	78.539
Total Adjustments	108.802	47.800	-37.997	-	-37.997
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	89.000	47.800			
• Congressional Directed Transfers	-	-			
• Reprogrammings	21.563	-			
• SBIR/STTR Transfer	-1.761	-			
• Adjustments to Budget Years	-	-	-37.997	-	-37.997
Congressional Add Details (\$ in Millions, and Includes General Reductions)					
Project: BP4: ELECTRONIC WARFARE ADVANCED TECHNOLOGIES (CA)					
Congressional Add: Advanced dynamic spectrum reconnaissance					
Congressional Add: Predictive maintenance system					
Congressional Add: Denied area monitoring and exploitation					
Congressional Add: Inter-satellite links for space operations					
Congressional Add: Next generation command platform					
Congressional Add: Advanced encryption technology					
Congressional Add: Modular open systems architecture development for radio frequency systems					
Congressional Add: C5ISR modular open suite of standards integration					
Congressional Add: High bandwidth cryptomodule					
Congressional Add: C5ISR next generation flexible digital antenna					
Congressional Add: Littoral autonomous detection and exploitation					
Congressional Add: Subterranean research facility					
Congressional Add: Textile-integrated detector arrays					

FY 2024	FY 2025
1.500	6.000
2.000	-
2.500	-
3.000	-
7.000	-
7.000	-
15.000	-
15.000	15.000
20.000	-
21.000	-
-	3.000
-	10.800
-	3.000

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Army		Date: June 2025	
Appropriation/Budget Activity 2040: Research, Development, Test & Evaluation, Army / BA 3: Advanced Technology Development (ATD)		R-1 Program Element (Number/Name) PE 0603463A / Network C3I Advanced Technology	
Congressional Add Details (\$ in Millions, and Includes General Reductions)		FY 2024	FY 2025
Congressional Add: <i>Unified distributed computing capability</i>		-	10.000
Congressional Add Subtotals for Project: BP4		94.000	47.800
Congressional Add Totals for all Projects		94.000	47.800
Change Summary Explanation Funding increase in Fiscal Year (FY) 2026 from the previous PB to the current PB reflects the net effect of realignments for maturation of predictive intelligent networking and multi-orbit modem, and initiates new efforts to mature data mesh design, next-generation command and control, and forward-looking networking tools.			

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army										Date: June 2025		
Appropriation/Budget Activity 2040 / 3					R-1 Program Element (Number/Name) PE 0603463A / Network C3I Advanced Technology				Project (Number/Name) AM7 / Modular RF Communications Advanced Technology			
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
AM7: Modular RF Communications Advanced Technology	-	-	1.993	2.417	-	2.417	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note

In Fiscal Year (FY) 2024, funding in this Project has a Skip Year.

A. Mission Description and Budget Item Justification

This Project matures developed techniques, methods, and standards for automation and intelligence to optimally broadcast data among available radio frequency (RF) and networking technologies. This Project will predict that a change in the network is needed and automatically make that change (transport, waveform mode, routing) prior to the network failing or being degraded. This Project provides a resilient transport agnostic network to the user.

Work in this Project complements Program Element (PE) 0602146A (Network C3I Technology) / Project AM6 (Modular RF Communications Technology).

The cited work is consistent with the Under Secretary of Defense for Research and Engineering priority focus areas and the Army modernization strategy.

Work in this Project is performed by the Command, Control, Computers, Communications, Cyber, Intelligence, Surveillance, and Reconnaissance (C5ISR) Center.

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2024	FY 2025	FY 2026
Title: Predictive Intelligent Networking Adv Tech	-	1.993	2.417
Description: This effort matures and demonstrates methods to enable the tactical network with artificial intelligence (AI) to autonomously identify, learn, predict, and react to changes in network operating conditions and threats to ensure end-to-end network resiliency against adversarial AI-driven electronic attacks (EA), electronic warfare (EW), and cyberattacks.			
FY 2025 Plans: Will develop internal and external facing Application Programming Interfaces (APIs) for integration into Program of Record (POR) systems; optimize and mature algorithms from Modeling and Simulation (M&S) for Mobility Prediction and Network Optimization work.			
FY 2026 Plans:			

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army		Date: June 2025		
Appropriation/Budget Activity 2040 / 3	R-1 Program Element (Number/Name) PE 0603463A / <i>Network C3I Advanced Technology</i>	Project (Number/Name) AM7 / <i>Modular RF Communications Advanced Technology</i>		
B. Accomplishments/Planned Programs (\$ in Millions) Will mature suitable solutions to enable Automated Primary, Alternate, Contingency, and Emergency (PACE) technologies with predictive algorithms in support of dynamic adaptations to changing environment; provide a microservices based framework with a modular approach to allow for autonomous dynamic configuration of network components. <i>FY 2025 to FY 2026 Increase/Decrease Statement:</i> Funding increase reflects realignment from Program Element (PE) 0602146A (Network C3I Technology) / Project AM6 (Modular RF Communications Technology) to transition the effort from a research and development phase to maturity of proof-of-concept technologies beginning with various lab-based and field-based demonstrations along with Solider Touchpoints as a continuous feedback loop.		FY 2024	FY 2025	FY 2026
Accomplishments/Planned Programs Subtotals		-	1.993	2.417
C. Other Program Funding Summary (\$ in Millions) N/A Remarks D. Acquisition Strategy N/A				

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army										Date: June 2025		
Appropriation/Budget Activity 2040 / 3					R-1 Program Element (Number/Name) PE 0603463A / Network C3I Advanced Technology				Project (Number/Name) AM9 / Protected SATCOM Advanced Technology			
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
AM9: Protected SATCOM Advanced Technology	-	13.663	5.511	10.612	-	10.612	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This Project matures and demonstrates technologies and components to increase resiliency of Wideband Satellite Communications (SATCOM) in contested and congested electromagnetic environments. This Project improves resiliency through science & technology investigation. This Project complements technologies that provide obfuscation of radio frequency (RF) spectrum signature in order to counter enemy electronic surveillance capabilities.

Work in this Project complements Program Element (PE) 0602146A (Network C3I Technology) / Projects AM8 (Protected SATCOM Technology).

The cited work is consistent with the Under Secretary of Defense for Research and Engineering priority focus areas and the Army modernization strategy.

Work in this Project is performed by the Command, Control, Computers, Communications, Cyber, Intelligence, Surveillance, and Reconnaissance (C5ISR) Center.

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2024	FY 2025	FY 2026
Title: Protected SATCOM Advanced Technology and Resilient Tactial Networking and Comms	13.663	-	-
Description: This effort matures and demonstrates technologies and components to increase resiliency of Wideband SATCOM in contested and congested electromagnetic environments. This effort improves resiliency through science & technology investigation. Will complement technologies that provide obfuscation of RF spectrum signature in order to counter enemy electronic surveillance capabilities.			
Title: Multi-Orbit Modem (MOM) Advanced Technology	-	5.511	10.612
Description: This effort matures, optimizes and demonstrates Satellite Communications (SATCOM) ground terminal modem and management technology components to enable operation over multiple satellite constellations to increase performance and resiliency of wideband SATCOM in contested and congested electromagnetic environments. Modem components will include a software based terminal controller for modem management, repository of modem waveforms, and supporting network management. This effort develops resiliency through a flexible modem technology investigation and is complementary with Protected SATCOM efforts focused on antenna development.			
FY 2025 Plans:			

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army		Date: June 2025	
Appropriation/Budget Activity 2040 / 3	R-1 Program Element (Number/Name) PE 0603463A / <i>Network C3I Advanced Technology</i>	Project (Number/Name) AM9 / <i>Protected SATCOM Advanced Technology</i>	
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2024	FY 2025
<p>Will mature, optimize, and demonstrate select SATCOM technologies that contribute to SATCOM resiliency; will mature and demonstrate OTM satellite ground terminal technology that supports operation over multiple satellite constellations at multiple frequency bands.</p> <p><i>FY 2026 Plans:</i> Will improve and demonstrate digital management and control technology in order to optimize performance and form factor to enable integration into a tactical environment mature performance to support operation over multiple military and commercial satellite constellations, providing resilient operation in a hybrid SATCOM architecture; develop additional resiliency and redundancy by leveraging multiple simultaneous military and commercial satellite constellations; investigate further virtualization of waveforms leveraging emerging technologies such as Digital Intermediate Frequency Interoperability (DIFI).</p> <p><i>FY 2025 to FY 2026 Increase/Decrease Statement:</i> Funding increase reflects realignment from Program Element (PE) 0602146A (Network C3I Technology) / Project AM8 (Protected SATCOM Technology) due to a decrease in applied research activities and represents the transition from generic investment in SATCOM on the move technology investigation to specific application of funds to hardware and software Army capability goals.</p>			
Accomplishments/Planned Programs Subtotals		13.663	5.511
C. Other Program Funding Summary (\$ in Millions)			
N/A			
Remarks			
D. Acquisition Strategy			
N/A			

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army										Date: June 2025		
Appropriation/Budget Activity 2040 / 3					R-1 Program Element (Number/Name) PE 0603463A / Network C3I Advanced Technology				Project (Number/Name) AN4 / Non Traditional Waveforms Advanced Technology			
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
AN4: Non Traditional Waveforms Advanced Technology	-	5.130	17.488	7.797	-	7.797	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This Project demonstrates non-traditional waveforms and technologies for resilient communications in contested environments providing anti-jam, low probability of intercept, and low probability of detection for the dismounted and vehicular user. This Project also optimizes technologies not typically applied to the tactical environment, such as millimeter wave communications and directional networking with coherent combining of radio frequency signals, to maintain networked communications in and under contested and congested electromagnetic spectrum environments.

Work in this Project complements Program Element (PE) 0602146A (Network C3I Technology) / Project AN3 (Non Traditional Waveforms Technology) and Project AO4 (Energy Efficient Devices Technology).

The cited work is consistent with the Under Secretary of Defense for Research and Engineering priority focus areas and the Army modernization strategy.

Work in this Project is performed by the Command, Control, Computers, Communications, Cyber, Intelligence, Surveillance, and Reconnaissance (C5ISR) Center.

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2024	FY 2025	FY 2026
Title: Relay for Aerial to Non-line-of-sight Ground Environments (RANGE)	5.130	12.925	5.044
Description: This effort matures and demonstrates as next-generation aerial communications relay payloads to maintain communications coverage in Non-Line-of-Sight (NLOS) environments. The technology will provide flexibility to enable the communications relay to support both currently fielded radios and emerging/future radios including those with anti-jam and low probability of detection capabilities.			
FY 2025 Plans: Will mature scalable and modular small-form-factor aerial relay communications payloads to include system prototyping of multiple system variants; perform lab-based assessments to validate sub-system and integrated system performance; implement and validate communications waveforms/protocols on system; mature and demonstrate CMOS adapter card; perform initial field testing in an outdoor environment; mature a radio communications system that has the flexibility to support not only high bandwidth, low latency commercial communication systems (e.g. 5G, Wi-Fi) but also tactical waveforms with the			

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army			Date: June 2025		
Appropriation/Budget Activity 2040 / 3		R-1 Program Element (Number/Name) PE 0603463A / Network C3I Advanced Technology	Project (Number/Name) AN4 / Non Traditional Waveforms Advanced Technology		
B. Accomplishments/Planned Programs (\$ in Millions)			FY 2024	FY 2025	FY 2026
ability to seamlessly switch between tactical and commercial communications methods based on mission needs and security considerations without the need for multiple hardware systems.					
FY 2026 Plans: Will further mature and demonstrate a next-generation multi-layered communications Wireless Network through a field-based test, fix, test paradigm in an operationally relevant environment. Will verify and validate Wireless Network requirements and integrated system performance specifications on relays between ground and aerial platforms both crewed and uncrewed. Will verify and validate radio communication systems with high bandwidth, low latency commercial systems (e.g. 5G, WiFi) and tactical waveforms. Will verify and validate the ability to seamlessly switch between tactical and commercial communications methods.					
FY 2025 to FY 2026 Increase/Decrease Statement: Funding decrease reflects planned lifecycle of effort and final funded year in FY26, representing completion of the 6.3 effort.					
Title: Spectrum Superstorm			-	4.563	-
Description: This effort matures commercial technical effects technology with an emphasis on blue force communications deconfliction, high fidelity pattern of life generation, and orchestration software. This effort provides the capability to create a radio frequency (RF) "smoke screen" for the network that will overwhelm adversary electronic support capability resulting in increased difficulty to find and fix targets based on their RF signature.? This capability has applications at Division and below and the CEMA cell efforts to create periods of spectrum dominance during the dominate phase of conflict.					
FY 2025 Plans: Will mature system design characteristics in both preliminary design review and critical design reviews; optimize system size, weight, and power; demonstrate multiple technical effects device in a laboratory environment.					
FY 2025 to FY 2026 Increase/Decrease Statement: Funding decrease reflects realignment to Program Element (PE) 0603275A (Electronic Warfare Advanced Technology) / Project A67 (EW for Maneuver Operations (EMO) Adv Tech) as a part of the Department of Defense Capability Based (Agile) Funding pilot, which provides enhanced capabilities by fostering innovation and accelerated deployment of promising technology.					
Title: Quantum Sensing			-	-	1.260
Description: This effort demonstrates the use of novel quantum-enhanced spectral receivers capable of wideband sensing of extremely low power signals at very large standoff distances. This effort matures quantum component technologies for use in very sensitive receivers. This effort designs and develops tactically relevant quantum sensors, considering form-factor, size, weight, power, and receiver performance.					
FY 2026 Plans:					

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army			Date: June 2025		
Appropriation/Budget Activity 2040 / 3		R-1 Program Element (Number/Name) PE 0603463A / <i>Network C3I Advanced Technology</i>	Project (Number/Name) AN4 / <i>Non Traditional Waveforms Advanced Technology</i>		
B. Accomplishments/Planned Programs (\$ in Millions)			FY 2024	FY 2025	FY 2026
Will demonstrate ruggedized prototype in a relevant environment, and optimize design based upon performance and soldier feedback. Will continue to update and refine build process to identify logistically available components to increase availability of the system. Will interface with standard Army data processors and networks to provide information into a larger DoD network.					
FY 2025 to FY 2026 Increase/Decrease Statement: Funding increase represents a completion of applied research conducted under Program Element (PE) 0602146A (Network C3I Technology) / Project AN3 (Non-Traditional Waveforms Technology) and movement into a demonstratable system for experimentation and additional TRL advancement.					
Title: Extremely High Bandwidth Communications (ExHiBComms) Description: This effort further develops communication systems capable of 100X today's data rates while providing spatial low probability of intercept and low probability of detection to the links due to extremely high frequencies of operation. This effort will generate two products: Free Space Optics (FSO) and access points supporting multiple users with extremely high bandwidth. ExHibComm will target on-the-move ground links, but it can support ground to air, ground to space, air to air and air to space applications, enabling multi domain operations. ExHiBComm solves the challenge of spectrum scarcity and enables links anywhere in the world without the need of frequency clearances. FY 2026 Plans: Will develop advance initial acquisition and tracking mechanisms/algorithms with mature multi-element apertures for on-the-move FSO capability. Will develop mechanisms for failover to other high throughput links. Will develop high throughput wireless access points using technologies such as 5G, mmW and Sub-TeraHertz, etc. Will conduct lab and field demonstrations in representative environments to evaluate FSO system performance and determine capability limitations. Will mature small form factor FSO communication transceiver to steer a beam and enable automatic acquisition and maintenance of link through pointing, acquisition and tracking implementation. FY 2025 to FY 2026 Increase/Decrease Statement: Funding increase reflects planned initiation of this 6.3 effort in FY26 complementing the 6.2 effort started in FY25 under Program Element (PE) 0602146A (Network C3I Technology) / Project AN3 (Non-Traditional Waveforms Technology).			-	-	1.493
Accomplishments/Planned Programs Subtotals			5.130	17.488	7.797
C. Other Program Funding Summary (\$ in Millions)					
N/A					
Remarks					

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army		Date: June 2025
Appropriation/Budget Activity 2040 / 3	R-1 Program Element (Number/Name) PE 0603463A / Network C3I Advanced Technology	Project (Number/Name) AN4 / Non Traditional Waveforms Advanced Technology
D. Acquisition Strategy N/A		

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army										Date: June 2025		
Appropriation/Budget Activity 2040 / 3					R-1 Program Element (Number/Name) PE 0603463A / Network C3I Advanced Technology				Project (Number/Name) AN8 / COE - Every Receiver is a Sensor Advanced Tech			
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
AN8: COE - Every Receiver is a Sensor Advanced Tech	-	6.374	5.480	-	-	-	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		
A. Mission Description and Budget Item Justification												
This Project optimizes automated exploitation and fusion analysis tools, applications, and software services that harvest, correlate and fuse tactical receiver sources with new and emerging data sources to improve understanding of the threat picture and more efficiently support near-real time Situational Understanding of the battlefield.												
Work in this Project complements Program Element (PE) 0603463A (Network C3I Advanced Technology) / Project AO1 (UNT - Every Receiver is a Sensor Advanced Tech) and PE 0602146A (Network C3I Technology) / Project AN7 (COE - Every Receiver is a Sensor Technology).												
The cited work is consistent with the Under Secretary of Defense for Research and Engineering priority focus areas and the Army Modernization Strategy.												
Work in this Project is performed by the Command, Control, Computers, Communications, Cyber, Intelligence, Surveillance, and Reconnaissance (C5ISR) Center.												
B. Accomplishments/Planned Programs (\$ in Millions)									FY 2024	FY 2025	FY 2026	
Title: Intelligence, Surveillance and Reconnaissance Optimization for Multi-Domain Operations Support Advanced Tech									6.374	3.038	-	
Description: This effort will use automated threat process to focus sensor collection requirements. Collection plans are to be synchronized across echelons optimizing scheduling and placement of sensor assets from both national and joint capabilities. Effort enables cooperative multi-sensor, multi-intelligence (INT) collection orchestrations by leveraging All Domain Overhead Collection Operations (AOCO) family of standards. Effort develops prototype software to demonstrate autonomous cross cue of multi-INT sensors and analytics.												
FY 2025 Plans:												
Will demonstrate ISR collection orchestration software tools to execute cooperative sensing and near-real-time cross cueing of Army, national, and joint sensors to improve target detection, tracking, and identification during Multi-Domain Operations (MDO).												
FY 2025 to FY 2026 Increase/Decrease Statement:												
Funding decrease reflects the planned completion of this effort.												
Title: Virtual Orchestration of Kinetic Non-Kinetic Targeting Advanced Technology									-	2.442	-	

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army		Date: June 2025	
Appropriation/Budget Activity 2040 / 3	R-1 Program Element (Number/Name) PE 0603463A / <i>Network C3I Advanced Technology</i>	Project (Number/Name) AN8 / <i>COE - Every Receiver is a Sensor Advanced Tech</i>	
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2024	FY 2025
<p>Description: This effort will provide Army Commanders the full range of multi-domain options by integrating kinetic and non-kinetic targeting and effects into the mission execution and mission planning cycles. Effort will develop software tools to augment the kinetic targeting process, to include non-kinetic engagement.</p> <p>FY 2025 Plans: Will mature target development workflow tools to incorporate non-kinetic effects planning into the target development process with alignment to the Attack Guidance Matrix (AGM) and the Target Selection Standards (TSS); mature target weapons pairing analytics to improve recommendations for kinetic and non-kinetic engagements.</p> <p>FY 2025 to FY 2026 Increase/Decrease Statement: Funding decrease reflects realignment to Program Element (PE) 0603116A (Lethality Advanced Technology) / Project CID (Sensor to Shooter (STS) Advanced Technology).</p>			
Accomplishments/Planned Programs Subtotals		6.374	5.480
C. Other Program Funding Summary (\$ in Millions) N/A Remarks D. Acquisition Strategy N/A			

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army										Date: June 2025		
Appropriation/Budget Activity 2040 / 3					R-1 Program Element (Number/Name) PE 0603463A / Network C3I Advanced Technology				Project (Number/Name) AO1 / UNT - Every Receiver is a Sensor Advanced Tech			
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
AO1: UNT - Every Receiver is a Sensor Advanced Tech	-	3.054	4.179	3.494	-	3.494	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This Project demonstrates high fidelity Cyber-Electromagnetic Activity (CEMA) situational understanding by exploiting tactical receivers with sufficient capabilities as sensors; optimizes real-time radio frequency mapping of the tactical environment in support of network operation and decision making; and mature counter-AI algorithms to enhance Army's SIGNINT platforms survivability against peer adversaries' smart weapon systems. This project will help the Army pace global electromagnetic spectrum technology advancements by maturing and demonstrating critical near peer signals intelligence (SIGINT) capabilities designed for the Army's size, weight, and power (SWaP)-constrained tactical edge.

Work in this Project complements Program Element (PE) 0602146A (Network C3I Technology) / Project AN9 (UNT - Every Receiver is a Sensor Technology) and Project AN7 (COE - Every Receiver is a Sensor Technology); and PE 0603463A (Network C3I Advanced Technology) / Project AN8 (COE Every Receiver is a Sensor Advanced Tech).

The cited work is consistent with the Under Secretary of Defense for Research and Engineering priority focus areas and the Army modernization strategy.

Work in this Project is performed by the Command, Control, Computers, Communications, Cyber, Intelligence, Surveillance, and Reconnaissance (C5ISR) Center.

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2024	FY 2025	FY 2026
Title: Multi Int Modernization Combined Architecture (MIMCA) Advanced Technology	3.054	3.177	-
Description: This effort develops technologies and methodologies to overcome the interference experienced in current co-located, multifunction systems that hinders the efficient, effective execution of simultaneous Electronic Warfare (EW), signals intelligence and cyber missions. This effort will improve resourcing, scheduling and collaboration so that sensor systems can self-optimize, identify spectrum conflicts, and fully utilize all available assets to enable simultaneous use of the spectrum on a threat dense battlefield.			
FY 2025 Plans: Will mature and demonstrate advanced scheduling technology to dynamically optimize resource allocation to complete multifunction missions; exploit commercial interference mitigation technology to increase efficient use of RF spectrum resources and simultaneity on multifunction platforms.			
FY 2025 to FY 2026 Increase/Decrease Statement:			

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army		Date: June 2025		
Appropriation/Budget Activity 2040 / 3	R-1 Program Element (Number/Name) PE 0603463A / Network C3I Advanced Technology	Project (Number/Name) AO1 / UNT - Every Receiver is a Sensor Advanced Tech		
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2024	FY 2025	FY 2026
Funding decrease reflects realignment to Program Element (PE) 0603275A (Electronic Warfare Advanced Technology) / Project A76 (UNT - Every Receiver is a Sensor Advanced Tech) as a part of the Department of Defense Capability Based (Agile) Funding pilot, which provides enhanced capabilities by fostering innovation and accelerated deployment of promising technology.				
<p>Title: Army SIGINT Modernization Advanced Technology</p> <p>Description: This effort will mature and demonstrate radio frequency (RF) signal analysis and processing techniques that automate detection, identification, and exploitation of high priority peer/near-peer adversary military signals, significantly increasing autonomous detection and exploitation of priority signals of interest. The effort will improve robustness against realistic congested RF environments and will optimize for size, weight, and power constrained tactical edge environments.</p> <p>FY 2025 Plans: Will mature RF signal detection and classification techniques against peer/near-peer adversary threats, improving robustness against realistic congested RF environments and suitability for size, weight, and power (SWAP) constrained tactical edge environments; use modeling and simulation to demonstrate and optimize signal detection performance and ranges for fixed-site/ on-the-move platforms.</p> <p>FY 2026 Plans: Will improve RF signal detection and classification techniques against peer/near-peer adversary threats; validate RF processing techniques and improve robustness against realistic congested RF environments and suitability for size, weight, and power (SWAP) constrained tactical edge environments; use modeling and simulation to demonstrate and optimize signal detection performance and ranges for fixed-site/ on-the-move platforms.</p> <p>FY 2025 to FY 2026 Increase/Decrease Statement: Funding increase reflects maturation of radio frequency techniques</p>		-	1.002	1.499
<p>Title: Multi-Function RF and Deep Sensing</p> <p>Description: This effort develops advanced, converged multi-function radio frequency (RF) sensor technology needed for next generation aerial Intelligence, Surveillance, and Reconnaissance (ISR). This effort significantly enhances detection, localization, identification, and tracking capabilities for targeting disadvantaged emitters and ground targets at long range while operating in contested environments.</p> <p>FY 2026 Plans:</p>		-	-	1.995

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army		Date: June 2025	
Appropriation/Budget Activity 2040 / 3	R-1 Program Element (Number/Name) PE 0603463A / <i>Network C3I Advanced Technology</i>	Project (Number/Name) AO1 / <i>UNT - Every Receiver is a Sensor Advanced Tech</i>	
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2024	FY 2025
Will mature and modify laboratory RF modeling and simulation framework to assess multi-function RF sensor architectures for converged radar and signals intelligence (SIGINT) operation; define mission vignettes suitable for analyzing modeled sensor performance in an aerial ISR concept of operations. <i>FY 2025 to FY 2026 Increase/Decrease Statement:</i> Funding increase reflects initiation of Multi-Function RF and Deep Sensing. Funding realigned from Program Element 0603463A (Network C3I Advanced Technology) / Project AN4 (Non-Traditional Waveforms Advanced Technology).			
Accomplishments/Planned Programs Subtotals		3.054	4.179
C. Other Program Funding Summary (\$ in Millions)			
N/A			
Remarks			
D. Acquisition Strategy			
N/A			

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army										Date: June 2025		
Appropriation/Budget Activity 2040 / 3					R-1 Program Element (Number/Name) PE 0603463A / <i>Network C3I Advanced Technology</i>				Project (Number/Name) AO7 / <i>EW for Maneuver Operations (EMO) Adv Tech</i>			
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
AOT: <i>EW for Maneuver Operations (EMO) Adv Tech</i>	-	3.106	-	-	-	-	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This Project matures and demonstrates distributed, coordinated Electromagnetic Warfare (EW) capabilities designed to extend effective range, reduce susceptibility to localization, and introduce errors into adversary Intelligence, Surveillance, Reconnaissance & Targeting (ISR&T) systems to facilitate multi-domain operations (MDO). This Project will mature Electromagnetic Warfare (EW) resources to mitigate Electromagnetic Protection (EP), against a finite set of threat capabilities, present in Anti-Access Area Denial (A2/AD) threats to achieve improved freedom of maneuver.

Work in this Project complements Program Element (PE) 0602146A (Network C3I Technology) / Project AP5 (Electronic Warfare Technology).

The cited work is consistent with the Under Secretary of Defense for Research and Engineering priority focus areas and the Army modernization strategy.

Work in this Project is performed by the Command, Control, Computers, Communications, Cyber, Intelligence, Surveillance, and Reconnaissance (C5ISR) Center.

B. Accomplishments/Planned Programs (\$ in Millions)	FY 2024	FY 2025	FY 2026
Title: Tactical Force Signature Effects (TForSE) Advanced Technology - Counter ISR Techniques	3.106	-	-
Description: This effort matures and demonstrates Electromagnetic Warfare capabilities against adversary counter-fire sensors and Intelligence, Surveillance, and Reconnaissance (ISR) systems leveraging high fidelity hardware-in-the-loop, modeling and simulation (M&S), and representative systems.			
Accomplishments/Planned Programs Subtotals	3.106	-	-

C. Other Program Funding Summary (\$ in Millions)

N/A

Remarks

D. Acquisition Strategy

N/A

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army										Date: June 2025		
Appropriation/Budget Activity 2040 / 3					R-1 Program Element (Number/Name) PE 0603463A / Network C3I Advanced Technology				Project (Number/Name) AQ5 / Sensor CE-Integrated Sensor Architecture Adv Tech			
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
AQ5: Sensor CE-Integrated Sensor Architecture Adv Tech	-	1.933	-	-	-	-	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note
In Fiscal Year (FY) 2025, this Project is terminated.

A. Mission Description and Budget Item Justification
This Project matures and demonstrates capabilities that enable and enhance sensor interoperability across disadvantaged and disparate networks.? It leverages and furthers the existing architectures consisting of standards, interfaces, and services. Enabling operationally relevant data to efficiently move across the network and ensures data is available for the Command & Control (C2) systems, integration into Tactical Operations Centers (TOC), ingestion into decision support aides and is actionable at the tactical edge.

The cited work is consistent with the Under Secretary of Defense for Research and Engineering priority focus areas and the Army Modernization Strategy.

Work in this Project is performed by the Command, Control, Computers, Communications, Cyber, Intelligence, Surveillance, and Reconnaissance (C5ISR) Center.

B. Accomplishments/Planned Programs (\$ in Millions)	FY 2024	FY 2025	FY 2026
Title: Sensor CE - Integrated Sensor Architecture	1.933	-	-
Description: This effort matures and demonstrates an agile and adaptive interoperability sensor architecture that allows a system to dynamically discover and leverage other systems on a network without any specific or prior knowledge across limited, heterogeneous resources and against a peer adversary. The goal of this effort is to develop standards, models, and protocols that provide a common language for sensor systems to connect, publish their capabilities and needs, and interact with other systems, even on disadvantaged networks. The benefits of this effort are increased sensor collaboration, reduced decision timelines, reduced soldier load, and reduced integration costs.			
Accomplishments/Planned Programs Subtotals	1.933	-	-

C. Other Program Funding Summary (\$ in Millions)
N/A

Remarks

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army		Date: June 2025
Appropriation/Budget Activity 2040 / 3	R-1 Program Element (Number/Name) PE 0603463A / Network C3I Advanced Technology	Project (Number/Name) AQ5 / Sensor CE-Integrated Sensor Architecture Adv Tech
D. Acquisition Strategy N/A		

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army										Date: June 2025		
Appropriation/Budget Activity 2040 / 3					R-1 Program Element (Number/Name) PE 0603463A / Network C3I Advanced Technology				Project (Number/Name) AQ8 / High Tempo Data Driven Decision Tools Adv Tech			
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
AQ8: High Tempo Data Driven Decision Tools Adv Tech	-	27.083	3.791	18.218	-	18.218	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		
A. Mission Description and Budget Item Justification												
This Project matures and demonstrates data driven decision tools that help develop Situational Understanding (SU) for Commanders. It enhances decision-making and accurately assesses and integrates cross-warfighting functional area impacts with all the domains in Multi-Domain Operations (MDO), and thereby enhances mission effectiveness by improving decision cycles. This Project matures and integrates methods to optimize the Army's Command and Control (C2) services and data architecture to strengthen data-driven decisions.												
Work in this Project complements Program Element (PE) 0602146A (Network C3I Technology) / Project AQ7 (High Tempo Data Driven Decision Tools Technology).												
The cited work is consistent with the Under Secretary of Defense for Research and Engineering priority focus areas and the Army modernization strategy.												
Work in this Project is performed by the Command, Control, Computers, Communications, Cyber, Intelligence, Surveillance, and Reconnaissance (C5ISR) Center.												
B. Accomplishments/Planned Programs (\$ in Millions)									FY 2024	FY 2025	FY 2026	
Title: RoadRunner Advanced Technology									3.583	3.791	-	
Description: This effort matures and demonstrates stakeholder prioritized capabilities that fuse intel and ops perspectives that drive decisions to enable dominance in complex Multi-Domain Operations. Effort will deliver applications which improve command post warfighter functions through information and decision dominance. Proposals are selected in budget year and year of execution to meet stakeholder prioritized capabilities.												
FY 2025 Plans: Integrate Development, Security, and Operations (DevSecOps) technologies onto mission command and intel platforms, such as NGC2, coexisting with Innovation requirements efforts; mature DEVSECOPS processes to identify application vulnerabilities and deploy software patches; develop adaptive threat order of battle, optimize strategies using digitized plans, and prioritization with real time battle damage assessment.												
FY 2025 to FY 2026 Increase/Decrease Statement: Funding decrease reflects realignment to Next Generation Battle Systems Architecture and Infrastructure task within this Project.												
Title: Unified Data Reference Architecture (UDRA)									-	-	4.970	

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army			Date: June 2025		
Appropriation/Budget Activity 2040 / 3		R-1 Program Element (Number/Name) PE 0603463A / <i>Network C3I Advanced Technology</i>		Project (Number/Name) AQ8 / <i>High Tempo Data Driven Decision Tools Adv Tech</i>	
B. Accomplishments/Planned Programs (\$ in Millions)			FY 2024	FY 2025	FY 2026
<p>Description: This effort develops and matures Data Mesh design principles, reference architectures, and framework to flatten and simplify the Army's data architecture for effective and efficient data driven decisions. The UDRA data mesh enables a shift from network and system centrality to data centrality by exchanging data in the form of Data Products which are decoupled from underlying systems.</p> <p>FY 2026 Plans: Will mature Software and Data reference architectures, reference implementations, design patterns, and frameworks for implementing digital platforms (design and runtime), data / AI solutions, and other common components; mature solutions development and maximize modular reuse (by abstracting common architectures, design patterns, and frameworks and promoting shared services).</p> <p>FY 2025 to FY 2026 Increase/Decrease Statement: Funding increase reflects initiation of Unified Data Reference Architecture (UDRA). Funding realigned from Program Element (PE) 0603041A (All Domain Convergence Advanced Technology) / Project DA4 (All Domain Convergence Engineering & Architectures).</p>					
<p>Title: Next Generation Battle Systems Architecture and Infrastructure</p> <p>Description: This effort will mature next-generation command and control (NGC2) technology to enable commanders to effectively exercise command and control (C2) and to synchronize and manage combat power across all warfighting functions. This effort will demonstrate the ability to provide a real-time common operating picture to commanders at multiple echelons by providing a transformation in software delivery to meet the demands of modern warfighting utilizing the Platform as a Service (PaaS) model, optimizing common services in a composable, modular, and open architecture to rapidly meet stakeholder prioritized capabilities. This effort will demonstrate the ability to rapidly and effectively identify, optimize, and provide applications that incorporate real-time data while facilitating communications vertically and horizontally across the conflict arena.</p> <p>FY 2026 Plans: Will mature and develop Innovative Requirements techniques and Development, Security, and Operations (DevSecOps) technologies onto existing mission command and intel platforms; mature and develop a scalable, modular software framework that incorporates application, data, and platform layers to "plug-and-play" applications using modern software development practices; demonstrate initial functionalities, such as establishment and visualization of dynamic and real-time common operations picture, common intel picture, and common logistics picture, support for coordination and communication of offensive and defensive fires, and tools to enable commanders to communicate and collaborate in real time; optimize strategies using digitized plans and</p>			23.500	-	7.883

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army		Date: June 2025	
Appropriation/Budget Activity 2040 / 3	R-1 Program Element (Number/Name) PE 0603463A / Network C3I Advanced Technology	Project (Number/Name) AQ8 / High Tempo Data Driven Decision Tools Adv Tech	
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2024	FY 2025
mature rules based approaches and Machine Learning techniques for improved planning and information coverage to enhance workflow for overall decision, detection and delivery needs.			
FY 2025 to FY 2026 Increase/Decrease Statement: Funding increase reflects initiation of Next Generation Battle Systems Architecture and Infrastructure. Funding realigned from Program Element (PE) 0603041A (All Domain Convergence Advanced Technology) / Project CM2 (Collaborative Convergence Adv Tech Development) and RoadRunner Advanced Technology task within this Project.			
Title: Suite Of Live Virtual constructive nEtworking tools (SOLVE)		-	-
Description: This effort matures and demonstrates a forward-looking integrated suite of state-of-the-art Live, Virtual and Constructive Networking tools. These tools incorporate new capabilities that replicate realistic current and evolving tactical network conditions, facilitating the understanding of the resilience and reliability of diverse systems in a controlled and repeatable environment providing insights on how to effectively optimize the performance of future Army systems in complex electromagnetic environments.			5.365
FY 2026 Plans: Will provide a library of models, threats and integrated mission threads and relevant hardware footprints to support test scaling; mature and demonstrate an automated approach to create mission threads that reduce setup time and allow for a more dynamic implementation of continuous learning demands; optimize and validate the evolving threat foundation that enables the Army Science and Technology community to conduct demonstrations with real assets while bringing in virtualized future systems and threat profiles.			
FY 2025 to FY 2026 Increase/Decrease Statement: Funding increase reflects initiation of Suite Of Live Virtual constructive nEtworking tools (SOLVE). Funding realigned from Program Element (PE) 0603041A (All Domain Convergence Advanced Technology) / Project CM2 (Collaborative Convergence Adv Tech Development).			
Accomplishments/Planned Programs Subtotals		27.083	3.791
C. Other Program Funding Summary (\$ in Millions) N/A			
Remarks			
D. Acquisition Strategy N/A			

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army										Date: June 2025		
Appropriation/Budget Activity 2040 / 3					R-1 Program Element (Number/Name) PE 0603463A / Network C3I Advanced Technology				Project (Number/Name) AT8 / Network-Enabled GeoSpatial-GEOINT Services AdvTech			
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
AT8: Network-Enabled GeoSpatial-GEOINT Services AdvTech	-	4.586	3.764	6.194	-	6.194	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This Project accelerates and exploits the tactical value of emerging field generated, mission relevant 3-dimensional (3D) geospatial data supporting mission planning, mission rehearsal and tactical situational awareness. Integrates and demonstrates the geo-registration, feature extraction, change detection, data visualization and transmission capabilities developed in the applied research portion of this Project. Tools developed for the exploitation of 3D datasets will be integrated into a streamlined workflow requiring low levels of expertise, putting advanced processing capabilities in the hands of the Soldier. This Project also includes demonstrations of tactical enhancements and the integrated ability to rapidly share mission critical 3D information in support of planning and execution.

Work in this Project complements Program Element (PE) 0602146A (Network C3I Technology) / Project AT7 (Network-Enabled GeoSpatial and GEOINT Services Tech).

The cited work is consistent with the Under Secretary of Defense for Research and Engineering priority focus areas and the Army Modernization Strategy.

Work in this Project is performed by the United States Army Engineer Research and Development Center Geospatial Research Laboratory, Cold Regions Research and Engineering Laboratory, and Information Technology Laboratory.

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2024	FY 2025	FY 2026
Title: Optimization of Geospatial Data for Tactical Visualization-Demonstration	1.771	-	-
Description: This effort matures and demonstrates new open source software, data models and processes to generate a vision based geospatial foundation layer to enable end-users systems to visualize real-time mission critical geospatial content at the required level-of-detail (LOD) and enable position-navigation self-localization capability applicable to end-user devices at required accuracies optimized for the device, application, and mission.			
Title: Geospatial - Intelligence Community Merge Demonstration	2.060	2.717	2.925
Description: This effort matures an approach to automatically search Intelligence Community (IC) databases to discover and extract relevant attributes to be added as new metadata to adaptively scaled 3D terrain features and/or geographic areas. Geospatial and relevant intelligence data will be merged together, discoverable, and capable of user-selected query from a single			

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army			Date: June 2025		
Appropriation/Budget Activity 2040 / 3		R-1 Program Element (Number/Name) PE 0603463A / <i>Network C3I Advanced Technology</i>		Project (Number/Name) AT8 / <i>Network-Enabled GeoSpatial-GEOINT Services AdvTech</i>	
B. Accomplishments/Planned Programs (\$ in Millions)			FY 2024	FY 2025	FY 2026
computing environment. An enhanced 3D common operating picture will be demonstrated providing a more comprehensive understanding of the Operational Environment for greater situational awareness and decision making.					
FY 2025 Plans: Will demonstrate machine to machine API for database scraping to search, discover and extract relevant geospatial attributes. Will demonstrate software for retrieval of large geospatial datasets to end user devices in low bandwidth situations to enable Soldiers on the tactical edge to provide soldier-derived contextualization to the data.					
FY 2026 Plans: Will demonstrate the operation of an advanced prototype geospatial repository for geospatial data with advanced extraction tools, definable workflows, and decision analysis tool connectivity. Will demonstrate automated attribution through scraping and conflating publicly available information to geospatial features.					
FY 2025 to FY 2026 Increase/Decrease Statement: Funding decrease reflects adjustments to planned milestones and Army reduction. S&T will focus on selected use cases involving key features for localization, contextualization, and engineering attributes.					
Title: Geospatially Relevant Intuitive Propagation Services for Complex Environments Demonstration			0.755	1.047	1.078
Description: This effort matures and demonstrates a novel expert propagation framework for assessing sensor performance in complex terrain, with integrated battlefield sensor data and environmental predictive modeling (weather and terrain influences) into intuitive displays for analysts, planners, and collection managers. The resulting technology will optimize collection asset employment against adversaries as well as providing situational awareness of friendly units', multi-modal signature footprint (e.g. radio frequency, thermal, acoustic). This effort will significantly reduce the analyst cognitive load, and fill an important need for fused, validated, environment and terrain-aware analyses for multi-modal sensors in support of C2, Intelligence and Protection Warfighting Functions.					
FY 2025 Plans: Will demonstrate multi-modality software to take real-time cues from the sensor network and publish sensor performance results back to the Sensor Compute Environment producing geospatial data discoverable within Army devices. Will integrate fractional line of sight algorithms into the sensor performance modeling environment.					
FY 2026 Plans:					

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army		Date: June 2025	
Appropriation/Budget Activity 2040 / 3	R-1 Program Element (Number/Name) PE 0603463A / Network C3I Advanced Technology	Project (Number/Name) AT8 / Network-Enabled GeoSpatial-GEOINT Services AdvTech	
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2024	FY 2025
<p>Will demonstrate software capabilities of sensors for modeling performance under changing weather within an area of interest to increase mission effectiveness. This demonstration will occur within the Integrated Sensor Architecture (ISA) framework as well as a stand-alone mission planning tool within the Geospatial Intelligence Workstation (GWS).</p> <p>FY 2025 to FY 2026 Increase/Decrease Statement: Funding decrease reflects adjustments to planned milestones and Army reduction. Project scope reflects demonstrations of limited use cases.</p>			
<p>Title: Terrain & Battlefield Computing Optimized Network Compute Resources Demo</p> <p>Description: This effort integrates and demonstrates the Army's network ability to provide appropriate resources for geospatial data to include tools that require a wide range of data volumes (from low to very heavy), and as a consequence, may incur significant computational costs. The goal is to demonstrate a simulation testbed for geospatial tools under different network configurations and application scenarios. The simulation testbed will measure and inform network requirements that can accommodate geospatial products downstream and as far out as necessary.</p> <p>FY 2026 Plans: Will profile geospatial data resource demands that can support existing geospatially enabled applications. Will optimize geospatial data compression through smart lossy techniques for various geospatial data formats.</p> <p>FY 2025 to FY 2026 Increase/Decrease Statement: Funding increase reflects planned initiation of this effort.</p>		-	-
		2.191	
Accomplishments/Planned Programs Subtotals		4.586	3.764
C. Other Program Funding Summary (\$ in Millions)			
N/A			
Remarks			
N/A			
D. Acquisition Strategy			
N/A			

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army										Date: June 2025		
Appropriation/Budget Activity 2040 / 3					R-1 Program Element (Number/Name) PE 0603463A / Network C3I Advanced Technology				Project (Number/Name) AU1 / Tactical GeoSpatial Information Capabilities ATech			
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
AU1: Tactical GeoSpatial Information Capabilities ATech	-	2.035	2.722	3.422	-	3.422	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This Project matures and demonstrates next generation geospatial analytical tools for three-dimensional (3D) complex environments applicable to low echelon and tactical edge exploitation. These new capabilities will allow deployed units to enhance/update provisioned (baseline) standard, sharable, geospatial foundation (SSGF) data through automated analytics on multi-sourced spatial data resulting in streamlined, high fidelity terrain analysis products. Reducing data gaps and processing timelines will greatly increase Soldier situational awareness and support faster decision making in complex terrain.

Work in this Project complements Program Element (PE) 0602146A Network C3I Technology / Project AT9 (Tactical GeoSpatial Information Capabilities Techn).

The cited work is consistent with the Under Secretary of Defense for Research and Engineering priority focus areas and the Army Modernization Strategy.

Work in this Project is performed by the United States Army Engineer Research and Development Center Geospatial Research Laboratory.

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2024	FY 2025	FY 2026
Title: Geospatial Analytics and Prediction Demonstration	2.035	2.722	2.812
Description: This effort integrates and demonstrates automated/semi-automated geospatial tools implementing spatial/temporal data analysis, creation of predictive scenarios, anomaly detection and cross-scale and local-scale analysis of terrain.			
FY 2025 Plans: Will demonstrate and mature mapping workflows for high-resolution building-scale 3D imagery collection (interiors, exteriors and surrounding urban terrain), with optimized processing. Will expand designs for software tools for spatial, temporal and cross-scale analysis of terrain, using overhead imagery sources.			
FY 2026 Plans: Will demonstrate through end-user assessments of software tools for spatial, temporal and cross-scale analysis of terrain, using overhead imagery sources (such as time-series data processing, built-up area trends, and landscape monitoring). Will initiate designs for software tools for terrain and scenario forecasting.			
FY 2025 to FY 2026 Increase/Decrease Statement:			

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army		Date: June 2025	
Appropriation/Budget Activity 2040 / 3	R-1 Program Element (Number/Name) PE 0603463A / Network C3I Advanced Technology	Project (Number/Name) AU1 / Tactical GeoSpatial Information Capabilities ATech	
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2024	FY 2025
Funding increase reflects planned milestones for the development of automated/semi-automated geospatial tools.			
Title: Optimized Rendition of the Build Environment Demonstration Description: This effort supports mission training, planning and execution through optimized workflows effectively rendering the local built urban 3D environment. More specifically, this effort aims to balance and optimize key enduring metrics supported by shared community requirements (e.g. file sizes, file formats, visual/special quality, attribution/functionality, timelines, automation and ease of use). Further, this effort aims to add geospecific interior and subterranean spaces (via organic Soldier sensing capabilities) to the foundational and/or One World Terrain (OWT) datasets (facilitating enriched high resolution 3D urban terrain and tactical overlays, and assessment for changed conditions). Payoffs include (1) enabling capabilities such as exterior-to-interior routing planning, interior navigation (by soldier or robots), and urban-scale mission planning and rehearsal, and (2) S&T to inform future requirements for tactical visualization, mission planning devices and training simulators. FY 2026 Plans: Will incrementally engage with Soldier teams to better inform operational and/or training use-case scenarios. Will initiate data ingestion tests of generated 3D/2D urban-relevant imagery models within tactical devices and/or virtual training systems. FY 2025 to FY 2026 Increase/Decrease Statement: Funding increase reflects planned initiation of this effort.		-	-
Accomplishments/Planned Programs Subtotals		2.035	3.422
C. Other Program Funding Summary (\$ in Millions)			
N/A			
Remarks			
N/A			
D. Acquisition Strategy			
N/A			

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army	Date: June 2025
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Appropriation/Budget Activity 2040 / 3					R-1 Program Element (Number/Name) PE 0603463A / Network C3I Advanced Technology				Project (Number/Name) AU4 / Geospatially Enabled Operational Design Adv Tech			
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
AU4: <i>Geospatially Enabled Operational Design Adv Tech</i>	-	10.888	10.813	3.491	-	3.491	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This Project demonstrates, integrates and transitions to Mission Command Systems, a geospatially enabled collaborative planning environment, accessible across echelons, with capabilities that support Army Design Methodology (ADM) by providing the ability to perform conceptual planning and problem framing, supporting a greater understanding and visualization of the dynamic operational environment, a shared understanding of the operations purpose across echelons, and enhanced products to drive detailed budget planning and operational assessment processes, enhancing the collaborative interaction between commanders, staffs, and unified action partners.

Work in this Project complements Program Element (PE) 0602146A (Network C3I Technology) / Project AU3 (Geospatially Enabled Operational Design Technology).

The cited work is consistent with the Under Secretary of Defense for Research and Engineering priority focus areas and the Army Modernization Strategy.

Work in this Project is performed by the United States Army Engineer Research and Development Center Geospatial Research Laboratory and Information Technology Laboratory.

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2024	FY 2025	FY 2026
Title: Integration of intel and logistics Multi Echelon Planning Description: This effort demonstrates a suite of analytical and visualization tools designed to facilitate analysis of multiple courses of action through modeling and simulation (M&S) and wargames to support development of alternate Courses of Action (COAs) and approval of the operational plan.	3.091	-	-
Title: Automated intelligence Preparation of the Battlefield (IPB) Demonstrations Description: This effort develops and demonstrates a collaborative, adaptive planning capability that allows planners to employ resources leveraging geospatial, terrain, environmental effects, and authoritative data from distributed information databases in order to collaborate in the development and assessment of courses of action, visualize potential outcomes, make decisions and develop and disseminate plans and orders. FY 2025 Plans:	3.141	5.363	3.491

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army		Date: June 2025	
Appropriation/Budget Activity 2040 / 3	R-1 Program Element (Number/Name) PE 0603463A / Network C3I Advanced Technology	Project (Number/Name) AU4 / Geospatially Enabled Operational Design Adv Tech	
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2024	FY 2025
<p>Will mature and demonstrate automated analytical tools that allow IPB products which support the Military Decision Making Process (MDMP) to be processed and integrated into the digital plans inside Joint Planning Services (JPS) and the common command and control software/Command Post Computing Environment. Will optimize advanced algorithms to extract authoritative data supporting seamless integration with Intel analysis tools that generate IPB products.</p> <p>FY 2026 Plans: Will mature and demonstrate selected planning capabilities, in order of priority, to the Data Platform.</p> <p>FY 2025 to FY 2026 Increase/Decrease Statement: Funding decrease reflects adjustments to planned milestones and Army reduction.</p>			
<p>Title: GEOInt Ops Integration of tactical operational and strategic orders</p> <p>Description: This effort will demonstrate a suite of automated tools designed to facilitate rapid and efficient dissemination of orders and real-time visibility of subordinate planning as it relates to key tasks from higher echelons and desired end state down to Battalion.</p> <p>FY 2025 Plans: Will mature and demonstrate automated analytical tools that allow IPB products which support the Military Decision Making Process (MDMP) to be processed and integrated into the digital plans inside Joint Planning Services (JPS) and the common command and control software/Command Post Computing Environment for Plans and Operations orders down to Battalion through tools that automatically populate planning tasks and ensure alignment with Commander's intent. Will demonstrate a flexible data model that will result in a real-time dashboard for integration of plans and orders to generate automated Operational Orders (OPORDs) and Fragmentary Orders resulting in time savings and reduction of cognitive burden.</p> <p>FY 2025 to FY 2026 Increase/Decrease Statement: Funding decrease reflects planned conclusion of this effort and transition for integration with Mission Command Systems.</p>		4.656	5.450
Accomplishments/Planned Programs Subtotals		10.888	10.813
C. Other Program Funding Summary (\$ in Millions)			
N/A			
Remarks			
N/A			
D. Acquisition Strategy			
N/A			

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army										Date: June 2025		
Appropriation/Budget Activity 2040 / 3					R-1 Program Element (Number/Name) PE 0603463A / Network C3I Advanced Technology				Project (Number/Name) AV8 / Navigation Warfare (NAVWAR) Advanced Technology			
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
AV8: Navigation Warfare (NAVWAR) Advanced Technology	-	5.900	3.988	-	-	-	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		
A. Mission Description and Budget Item Justification												
This Project matures and demonstrates capabilities allowing the Army to monitor, understand, and control the Navigation Warfare (NAVWAR) environment. This requires an integrated approach to Electronic Protection (EP), Electronic Support (ES), and Electronic Attack (EA) to rapidly characterize the NAVWAR environment, deny Positioning, Navigation, and Timing (PNT) based capabilities to our adversaries, and maintain Army capabilities.												
Work in this Project complements Program Element (PE) 0602146A (Network C3I Technology) / Project AW1 (Autonomous Navigation Technology).												
The cited work is consistent with the Under Secretary of Defense for Research and Engineering priority focus areas and the Army modernization strategy.												
Work in this Project is performed by the Command, Control, Computers, Communications, Cyber, Intelligence, Surveillance, and Reconnaissance (C5ISR) Center.												
B. Accomplishments/Planned Programs (\$ in Millions)										FY 2024	FY 2025	FY 2026
Title: Intelligent Electronic Protect (IEP) Advanced Technology										5.900	3.988	-
Description: This effort matures and demonstrates hardware and software capabilities that will enable an Assured Position Navigation and Timing (APNT) system to function as a Navigation Warfare (NAVWAR) sensor. The IEP enabled APNT system will be able to detect and identify information about jamming and spoofing threats in the Global Positioning System (GPS) environment, protecting units from spoofing and increasing the number and availability of NAVWAR sensors in the field. The proliferation of NAVWAR sensors allows the Electronic Warfare Planning and Management Tool (EWPMT) to create a NAVWAR Common Operating Picture with greater accuracy and coverage, allowing Commanders to make more informed decisions about maneuver and allowing for more accurate and successful fires missions.												
FY 2025 Plans: Will optimize machine learning (ML) techniques to enhance electronic sensing in an IEP enabled APNT system; provide capabilities that will allow software defined GPS receiver hardware to function as NAVWAR sensors; exploit NAVWAR data to provide protection through algorithm development, enabling communication between NAVWAR and APNT subsystems.												
FY 2025 to FY 2026 Increase/Decrease Statement:												

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army		Date: June 2025		
Appropriation/Budget Activity 2040 / 3	R-1 Program Element (Number/Name) PE 0603463A / Network C3I Advanced Technology	Project (Number/Name) AV8 / Navigation Warfare (NAVWAR) Advanced Technology		
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2024	FY 2025	FY 2026
Funding decrease reflects realignment to Program Element (PE) 0603275A (Electronic Warfare Advanced Technology) / Project A74 (Navigation Warfare (NAVWAR) Advanced Technology) as a part of the Department of Defense Capability Based (Agile) Funding pilot, which provides enhanced capabilities by fostering innovation and accelerated deployment of promising technology.				
Accomplishments/Planned Programs Subtotals		5.900	3.988	-
C. Other Program Funding Summary (\$ in Millions)				
N/A				
Remarks				
D. Acquisition Strategy				
N/A				

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army										Date: June 2025		
Appropriation/Budget Activity 2040 / 3					R-1 Program Element (Number/Name) PE 0603463A / Network C3I Advanced Technology				Project (Number/Name) AW6 / Modular GPS Independent Sensors Advanced Tech			
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
AW6: Modular GPS Independent Sensors Advanced Tech	-	8.298	11.282	4.923	-	4.923	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		
A. Mission Description and Budget Item Justification												
This Project matures and demonstrates a resilient, soldier-integrated precision navigation and timing solution, providing precision geolocation, geospatial survey information, global positioning system (GPS) spoofing awareness and countermeasures to dismounted warfighters in GPS-denied/degraded environments. It develops capabilities to enable open and flexible Position Navigation and Timing (PNT) systems architecture with unlimited data rights for the Army's dismounted systems.												
Work in this Project complements Program Element (PE) 0602146A (Network C3I Technology) / Project AW1 (Autonomous Navigation Technology) and Program Element (PE) 0602141A (Lethality Technology) / Project CG4 (Advanced Radar Concepts and Technologies).												
The cited work is consistent with the Under Secretary of Defense for Research and Engineering priority focus areas and the Army modernization strategy.												
Work in this Project is performed by the Command, Control, Computers, Communications, Cyber, Intelligence, Surveillance, and Reconnaissance (C5ISR) Center and the Army Applications Laboratory.												
B. Accomplishments/Planned Programs (\$ in Millions)									FY 2024	FY 2025	FY 2026	
Title: Soldier-Integrated Positioning, Navigation, and Timing (PNT)									0.308	3.606	-	
Description: This effort implements a standards-based, open PNT architecture solution for rapid commercial of the shelf (COTS) and emerging technology integration; incorporates artificial intelligence approaches to aggregate multiple organic and networked sensor inputs for improved PNT accuracy and reliability; demonstrates Simultaneous Localization and Mapping (SLAM) based-algorithms incorporating alternative PNT inputs; and demonstrates alternative PNT sensors and approaches, including radio frequency time differencing, signals of opportunity, inertial, gravimetric, and imagery.												
FY 2025 Plans:												
Will optimize and fully integrate previously developed COTs technologies into final hardware, software, and modular open systems architecture.												
FY 2025 to FY 2026 Increase/Decrease Statement:												
Funding change reflects planned life cycle conclusion of this effort in Fiscal Year (FY) 25.												
Title: Soldier Integrated Positioning Navigation and Timing - Modular Architecture & Integrated Demonstrators									7.990	7.676	-	

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army			Date: June 2025		
Appropriation/Budget Activity 2040 / 3		R-1 Program Element (Number/Name) PE 0603463A / Network C3I Advanced Technology	Project (Number/Name) AW6 / Modular GPS Independent Sensors Advanced Tech		
B. Accomplishments/Planned Programs (\$ in Millions)			FY 2024	FY 2025	FY 2026
<p>Description: This effort optimizes, improves, and demonstrates the modular architecture for PNT capabilities; matures and integrates alternative PNT sensors modules, including signals of opportunity, inertial, barometric, vision-based navigation modules; matures, integrates, demonstrates and validates a final Modular Handheld; integrates and demonstrates PNT technologies with interfacing Soldier systems. Results from this effort will be a fused PNT solution that will operate in a GPS denied environment.</p> <p>FY 2025 Plans: Will optimize and fully integrate PNT sensors for Soldier-borne device; mature final software, hardware, and specification components; demonstrate final hardware, software, and Modular Open Systems Architecture at FY25 Demonstrator Soldier Touch Point; provide integrity scoring and power management strategies for PNT sensors implemented into final demonstrator.</p> <p>FY 2025 to FY 2026 Increase/Decrease Statement: Funding change reflects planned life cycle conclusion of this effort in Fiscal Year (FY) 25.</p>					
<p>Title: Absolute Positioning Enabled by Resilient Tactical User Equipment (APERTURE) Advanced Tech</p> <p>Description: This effort matures and demonstrates techniques and algorithms that will enhance non-radio frequency (RF) positioning, navigation and timing (PNT) technologies. It employs sensing of physical phenomena properties correlated with a priori map and imagery data, and the application of emerging solutions to enable position localization and initialization in the absence of GPS. This effort validates a means of producing a reliable, assured position and time solution in identifiable environments, independent of RF based sources. It will demonstrate absolute positioning sensors and initialization algorithms incorporated into a GPS-free PNT technology demonstrator.</p> <p>FY 2026 Plans: Will validate and mature non-RF sensor capabilities developed by the Army Research Laboratory (ARL) and industry, capable of sensing and exploiting physical phenomena properties. Will validate most advantageous mix of complementary non-RF PNT technologies. Will mature novel algorithms to correlate physical phenomena measurements with a priori map and imagery data for localization and initialization of assured position navigation and timing (APNT) capabilities. Will provide non-RF sensor specifications necessary to localize and initialize.</p> <p>FY 2025 to FY 2026 Increase/Decrease Statement: Funding increase reflects planned initiation of this effort.</p>			-	-	4.923
Accomplishments/Planned Programs Subtotals			8.298	11.282	4.923
C. Other Program Funding Summary (\$ in Millions)					
N/A					

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army		Date: June 2025
Appropriation/Budget Activity 2040 / 3	R-1 Program Element (Number/Name) PE 0603463A / Network C3I Advanced Technology	Project (Number/Name) AW6 / Modular GPS Independent Sensors Advanced Tech
C. Other Program Funding Summary (\$ in Millions)		
Remarks		
D. Acquisition Strategy		
N/A		

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army										Date: June 2025		
Appropriation/Budget Activity 2040 / 3					R-1 Program Element (Number/Name) PE 0603463A / Network C3I Advanced Technology				Project (Number/Name) BP4 / ELECTRONIC WARFARE ADVANCED TECHNOLOGIES (CA)			
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
BP4: ELECTRONIC WARFARE ADVANCED TECHNOLOGIES (CA)	-	94.000	47.800	-	-	-	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note

Congressional Interest Item funding provided for Electronic Warfare Advanced Technologies.

A. Mission Description and Budget Item Justification

Congressional Interest Item funding provided for Electronic Warfare Advanced Technologies.

The cited work is consistent with the Under Secretary of Defense for Research and Engineering priority focus areas and the Army modernization strategy.

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2024	FY 2025
Congressional Add: Advanced dynamic spectrum reconnaissance	1.500	6.000
FY 2024 Accomplishments: Congressional Interest Item funding provided for Advanced dynamic spectrum reconnaissance		
FY 2025 Plans: Congressional Interest Item funding provided for Advanced dynamic spectrum reconnaissance		
Congressional Add: Predictive maintenance system	2.000	-
FY 2024 Accomplishments: Congressional Interest Item funding provided for Predictive maintenance system		
Congressional Add: Denied area monitoring and exploitation	2.500	-
FY 2024 Accomplishments: Congressional Interest Item funding provided for Denied area monitoring and exploitation		
Congressional Add: Inter-satellite links for space operations	3.000	-
FY 2024 Accomplishments: Congressional Interest Item funding provided for Inter-satellite links for space operations		
Congressional Add: Next generation command platform	7.000	-

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army		Date: June 2025
Appropriation/Budget Activity 2040 / 3	R-1 Program Element (Number/Name) PE 0603463A / Network C3I Advanced Technology	Project (Number/Name) BP4 / ELECTRONIC WARFARE ADVANCED TECHNOLOGIES (CA)
B. Accomplishments/Planned Programs (\$ in Millions)		
	FY 2024	FY 2025
FY 2024 Accomplishments: Congressional Interest Item funding provided for Next generation command platform		
Congressional Add: Advanced encryption technology	7.000	-
FY 2024 Accomplishments: Congressional Interest Item funding provided for Advanced encryption technology		
Congressional Add: Modular open systems architecture development for radio frequency systems	15.000	-
FY 2024 Accomplishments: Congressional Interest Item funding provided for Modular open systems architecture development for radio frequency systems		
Congressional Add: C5ISR modular open suite of standards integration	15.000	15.000
FY 2024 Accomplishments: Congressional Interest Item funding provided for C5ISR modular open suite of standards integration		
FY 2025 Plans: Congressional Interest Item funding provided for C5ISR modular open suite of standards integration		
Congressional Add: High bandwidth cryptomodule	20.000	-
FY 2024 Accomplishments: Congressional Interest Item funding provided for Congressional Interest Item funding provided for High bandwidth cryptomodule		
Congressional Add: C5ISR next generation flexible digital antenna	21.000	-
FY 2024 Accomplishments: Congressional Interest Item funding provided for C5ISR next generation flexible digital antenna		
Congressional Add: Littoral autonomous detection and exploitation	-	3.000
FY 2025 Plans: Congressional Interest Item funding provided for Littoral autonomous detection and exploitation		
Congressional Add: Subterranean research facility	-	10.800
FY 2025 Plans: Congressional Interest Item funding provided for Subterranean research facility		
Congressional Add: Textile-integrated detector arrays	-	3.000
FY 2025 Plans: Congressional Interest Item funding provided for Textile-integrated detector arrays		
Congressional Add: Unified distributed computing capability	-	10.000

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army		Date: June 2025	
Appropriation/Budget Activity 2040 / 3	R-1 Program Element (Number/Name) PE 0603463A / Network C3I Advanced Technology	Project (Number/Name) BP4 / ELECTRONIC WARFARE ADVANCED TECHNOLOGIES (CA)	
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2024	FY 2025
FY 2025 Plans: Congressional Interest Item funding provided for Unified distributed computing capability			
Congressional Adds Subtotals		94.000	47.800
C. Other Program Funding Summary (\$ in Millions)			
N/A			
Remarks			
D. Acquisition Strategy			
N/A			

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army										Date: June 2025		
Appropriation/Budget Activity 2040 / 3					R-1 Program Element (Number/Name) PE 0603463A / Network C3I Advanced Technology				Project (Number/Name) C17 / Mobile & Survivable Command Post (MASCP) Adv Tech			
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
C17: Mobile & Survivable Command Post (MASCP) Adv Tech	-	15.731	9.978	11.491	-	11.491	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The Project matures and demonstrates technologies to support scalable, survivable, mobile Command Posts (CP). Technologies addressed will use the Brigade CP as a baseline while providing the opportunity for solutions to scale up or down to Army tactical echelons. Research in this Project includes integrating anti-jam (AJ) and low probability of intercept (LPI)/low probability of detection (LPD) communications focused on enabling the CP to disperse, form & reform, and employ technologies for signal remoting; optimizing power generation and storage for distributed CP operations; reducing computing infrastructure footprint, size, weight, and power (SWAP), manpower, and complexity; maturing technologies to reduce CP emissions and have situational awareness of those signatures to improve CP node employment; maturing electro-magnetic spectrum (EMS) emulation technologies to improve survivability options; and optimizing emerging electronic-textiles and composite materials for CP structures.

Work in this Project complements Program Element (PE) 0602146A (Network C3I Technology) / Project C13 (Mobile and Survivable Command Post (MASCP) Tech).

The cited work is consistent with the Under Secretary of Defense for Research and Engineering Science and Technology focus areas and the Army modernization strategy.

Work in this Project is performed by the Command, Control, Computers, Communications, Cyber, Intelligence, Surveillance, and Reconnaissance (C5ISR) Center and Soldier Center (SC).

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2024	FY 2025	FY 2026
Title: CP Modularity and Dispersion Advanced Technology	9.454	7.324	5.095
Description: Increases the ability for Commanders to move and disperse the Command Post (CP) through improved intra-CP communications, modular CP hardware to include distributed power systems, and network solutions leveraging open systems architectures to support information flow in distributed, intermittent, and latent (DIL) environments. This effort will eliminate centralized points of failure and critical nodes that constrain CP mobility and survivability. Areas of technology development include be distributed tactical cloud architecture, mesh network security architecture, high performance computing, integrated power, and distributed collaborative technologies.			
FY 2025 Plans:			

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army			Date: June 2025		
Appropriation/Budget Activity 2040 / 3		R-1 Program Element (Number/Name) PE 0603463A / Network C3I Advanced Technology	Project (Number/Name) C17 / Mobile & Survivable Command Post (MASCP) Adv Tech		
B. Accomplishments/Planned Programs (\$ in Millions)			FY 2024	FY 2025	FY 2026
Will mature and demonstrate energy storage solutions with auxiliary power units as vehicle- mounted power systems to provide resilience and versatility for dispersed CP operations; mature and demonstrate solutions for secure mesh local area networks for dispersed CPs; improves performance of dispersed staff collaboration technologies; validate efficacy of disaggregated CP computing infrastructure; validates antenna remoting capability through low probability of detection communications.					
FY 2026 Plans: Will mature and demonstrate MASCP technologies on-the-move, aligned within the Next Generation Battle Systems Architecture and Infrastructure (C2Next) network architecture; demonstrate distributed computing on-the-move with automated mission failover and redundancy; demonstrate enterprise computing environment unified container-based software solution; mature and demonstrate a command post energy architecture connecting planned and ad-hoc energy sources for on-the move energy generation, storage, and management; demonstrate automated decision support solutions that apply expert knowledge to disadvantaged command entities.					
FY 2025 to FY 2026 Increase/Decrease Statement: Funding decrease reflects realignment to Program Element (PE) 0602146A (Network C3I Technology) / Project AN3 (Non Traditional Waveforms Technology) due to a decreased focus on technology maturation and an increased focus on demonstration and optimization of the technology based on the lifecycle of this effort.					
Title: Signature Management and Reduction Advanced Technology			4.970	2.654	6.396
Description: Provides advanced technologies to reduce and manage electromagnetic spectrum signatures of CP platforms and command post components.					
FY 2025 Plans: Will mature and demonstrate algorithms to specifically identify communications systems and rogue signals emanating from dispersed CPs to enhance the situational awareness of our effective signature as seen by our adversaries.					
FY 2026 Plans: Will mature and demonstrate automated decision support algorithms to simplify signature awareness understanding and processing; mature and demonstrate a signature common operating picture (COP), sharable on-the-move and supporting emission control decision making; demonstrate the ability to discern friendly, unknown, and threat signatures on a COP; optimize radio space, weight, and power designs for transition; optimize LPD radio systems for automated network switching and smart routing; demonstrate integrated LPD radio system compatibility with Next Generation Battle Systems Architecture and Infrastructure (C2Next) information environment and MASCP distributed edge hosting command and control solution.					
FY 2025 to FY 2026 Increase/Decrease Statement:					

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army		Date: June 2025			
Appropriation/Budget Activity 2040 / 3		R-1 Program Element (Number/Name) PE 0603463A / Network C3I Advanced Technology	Project (Number/Name) C17 / Mobile & Survivable Command Post (MASCP) Adv Tech		
B. Accomplishments/Planned Programs (\$ in Millions)			FY 2024	FY 2025	FY 2026
Funding increase reflects planned lifecycle of this effort to enable optimization of radio systems and demonstrations of signature common operating pictures and decisions support tools (AI) within the Army's enterprise design. Funding realigned from Program Element (PE) 0602146A (Network C3I Technology) / Project AN3 (Non Traditional Waveforms Technology).					
Title: Advanced Technology Supporting Camouflage, Concealment, and Deception			1.307	-	-
Description: This effort demonstrates innovative camouflage, concealment and deception technologies, for expeditionary assets (i.e. mission command platforms, battle management centers and supporting equipment), in order to defeat advanced and emerging adversary Intelligence, Surveillance and Reconnaissance (ISR) threats, and to reduce the probability of detection in multi-domain operations. Matures physics-based models for material and system performance that support probability of detection metrics in the multi-domain operational environment.					
Accomplishments/Planned Programs Subtotals			15.731	9.978	11.491
C. Other Program Funding Summary (\$ in Millions)					
N/A					
Remarks					
D. Acquisition Strategy					
N/A					

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army										Date: June 2025		
Appropriation/Budget Activity 2040 / 3					R-1 Program Element (Number/Name) PE 0603463A / Network C3I Advanced Technology				Project (Number/Name) CJ8 / Assured PNT Communications Advanced Tech			
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
CJ8: Assured PNT Communications Advanced Tech	-	11.563	13.435	5.145	-	5.145	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		
A. Mission Description and Budget Item Justification												
<p>This Project provides prototyping and development of Space-enabled and quantum technologies to support wide-area, responsive deep area sensing required for beyond line of sight (BLOS) targeting, significantly reducing Sensor to Shooter (S2S) timelines and increasing lethality and force protection. This Project provides Army forces access to commercial and National space assets and develops algorithms that process space and near space sensor data in real and near real time for integration into battlefield operating systems. The payoff of this work will be demonstrated advanced technologies for space-enabled capabilities for more secure, rapid communications, and deep target sensing for deep strike lethality, and freedom of maneuver.</p> <p>Work in this project complements Program Element (PE) 0602146A (Network C3I Technology) / Project CG3 (Assured PNT Communications Applied Research)/and Program Element (PE) 0602182A (C3I Applied Research) / Project CZ6 (Assured PNT Enabling Technologies).</p> <p>The cited work is consistent with the Under Secretary of Defense for Research and Engineering priority focus areas and the Army Modernization Strategy.</p> <p>Work in this Project is performed by the United States Army Space and Missile Defense Technical Center.</p>												
B. Accomplishments/Planned Programs (\$ in Millions)									FY 2024	FY 2025	FY 2026	
Title: Assured Positioning Navigation and Timing (APNT) Communications Advanced Technology									11.563	-	-	
Description: This effort matures and demonstrates technologies required for smaller, more responsive and direct access to space and HA deep-sensing sensors and tactical communication capabilities for soldiers at the tactical edge. Research will augment, improve, exploit, and optimize existing commercial and Department of Defense (DoD) technologies and networks.												
This effort will validate software, hardware, and algorithms used to enable Space-Based and HA platform based capabilities in support of the Army's Modernization Priorities. This effort will exploit commercial advances and opportunities in integrating Space/HA sensors or Deep Sensing capabilities and payload management toward future Army concepts. Develop/demonstrate critical technical elements for a LEO-based global high-speed network backbone enabling highly networked, resilient, and persistent DoD payloads to provide over the horizon sensing, signals, and communication, with continuous surveillance of ground, surface, and air domains.												
Title: HAYFINS									-	5.653	-	

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army			Date: June 2025		
Appropriation/Budget Activity 2040 / 3		R-1 Program Element (Number/Name) PE 0603463A / <i>Network C3I Advanced Technology</i>		Project (Number/Name) CJ8 / <i>Assured PNT Communications Advanced Tech</i>	
B. Accomplishments/Planned Programs (\$ in Millions)			FY 2024	FY 2025	FY 2026
<p>Description: This effort matures and demonstrates a ground-based system supporting Space and Autonomy Modernization priorities by fusing protection technologies with legacy systems that provide multi-modal capabilities to the Army to enhance freedom of maneuver supporting Multi-Domain Operations (MDO). This provides a tailored selection and application of multi-layered active and passive measures.</p> <p>FY 2025 Plans: Will evaluate a prototype system in a relevant environment and conduct threat analysis, Modeling and Simulation, and system design for follow-on capabilities.</p> <p>FY 2025 to FY 2026 Increase/Decrease Statement: Funding decrease reflects realignment to Program Element (PE) 0603275A (Electronic Warfare Advanced Technology) / Project A77 as part of the Department of Defense Capability Based (Agile) Funding pilot, which provides enhanced capabilities by fostering innovation and accelerated deployment of promising technology.</p>					
<p>Title: Deep Sensing Technologies</p> <p>Description: This effort enables timely, resilient, and operationally relevant connectivity between aerial and space based assets, as well as mesh networks, to collect space-based intelligence information in support of deep sensing operations. The impact to the Army is improved and assured situational awareness, tipping and queuing of sensors, and support for long-range precision fires across multiple domains.</p> <p>FY 2025 Plans: Will provide an electronically steerable antenna for integration onto the fuselage of the HADES prototype aircraft that will facilitate aerial and space connectivity to enable intelligence and targeting data from commercial and national assets. Will mature hardware and software in accordance with Sensor Computing Environment Standards to automate tipping and queuing of sensors.</p> <p>FY 2026 Plans: Provide initial capability for ground-based experimentation using tactically relevant hardware and software to facilitate air to space connectivity for dissemination of intelligence data from commercial and national assets.</p> <p>FY 2025 to FY 2026 Increase/Decrease Statement: The 50% reduction in FY26 combined with the 30% reduction in FY25 will prevent the procurement of technology demonstration components which will significantly reduce the final transitioned capabilities.</p>			-	5.326	2.797
Title: Quantum Sensing			-	2.456	0.970

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army			Date: June 2025		
Appropriation/Budget Activity 2040 / 3		R-1 Program Element (Number/Name) PE 0603463A / Network C3I Advanced Technology		Project (Number/Name) CJ8 / Assured PNT Communications Advanced Tech	
B. Accomplishments/Planned Programs (\$ in Millions)			FY 2024	FY 2025	FY 2026
<p>Description: This effort matures quantum sensing technologies for application to Army missions and demonstrates capabilities to validate applications to the Army sensing missions.</p> <p>FY 2025 Plans: Will mature and optimize quantum sensing technologies applicable to Army sensing missions. Will validate Quantum based RF/EO architectures for enhancing Army sensor performance standards. Particular interests include radar, deep sensing missions, LPI/LPD signals acquisition and transmission, environmental characterization and traditional component sensitivity enhancements.</p> <p>FY 2026 Plans: Demonstration of matured quantum architectures for RF applications. The focus will be to optimize Quantum enabled RF component for varying Army mission applications. Performance metrics will help support continued optimization.</p> <p>FY 2025 to FY 2026 Increase/Decrease Statement: Funding decrease reflects adjustments to planned milestones and Army reductions in service contracts and will not deliver maturation and demonstrations of Quantum based Radio Frequency research components related to novel molecules for enhanced instantaneous bandwidth in Ryberg electromagnetic field sensing, Traveling Wave Parametric Amplifier component development. Allotment will focus research on the more novel and promising Nitrogen Vacancy Center Diamond related quantum Radio Frequency component technology development.</p>					
<p>Title: Multi-Function RF Applications Research</p> <p>Description: Will mature and demonstrate multi-function Radio Frequency (RF) systems for Army missions. Demonstrate a flexible configuration enabling multi-mission applications utilizing single or multi-antenna configurations. This effort will optimize the complex combinations of multi-antenna configurations, and multi-mission waveforms for enhancements to traditional sensor modalities such as radar, communications and other missions.</p> <p>FY 2026 Plans: Will mature and demonstrate hardware based on prior modeling and simulation. Continued optimizations of hardware systems will be performed based on performance metrics from demonstrations.</p> <p>FY 2025 to FY 2026 Increase/Decrease Statement: Funding decrease reflects adjustments to planned milestones and Army reductions in service contracts and will not deliver matured software and hardware for integration of distributed aperture technologies into Army networks, systems, and operating</p>			-	-	1.378

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army		Date: June 2025		
Appropriation/Budget Activity 2040 / 3	R-1 Program Element (Number/Name) PE 0603463A / Network C3I Advanced Technology	Project (Number/Name) CJ8 / Assured PNT Communications Advanced Tech		
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2024	FY 2025	FY 2026
systems. Significant schedule slippage is expected for Multi-Function Radio Frequency systems, software, and hardware to Army partners in varying platforms.				
Accomplishments/Planned Programs Subtotals		11.563	13.435	5.145
C. Other Program Funding Summary (\$ in Millions)				
N/A				
Remarks				
D. Acquisition Strategy				
N/A				

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army										Date: June 2025		
Appropriation/Budget Activity 2040 / 3					R-1 Program Element (Number/Name) PE 0603463A / Network C3I Advanced Technology				Project (Number/Name) DB6 / Pathfinder 3D Advanced Technology			
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
DB6: Pathfinder 3D Advanced Technology	-	1.007	-	1.335	-	1.335	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		
A. Mission Description and Budget Item Justification												
This Project matures and demonstrates a geospatial rapid position and navigation solution in Global Positioning System (GPS) degraded and denied environments. Research focuses on using onboard sensors and high-resolution digital terrain geospatial alternative solution based upon Visual Three-Dimensional (3-D) Terrain Referencing and Navigation (VTRAN). This Project will result in the linkage of air and ground assets integrating sensory and (One World Terrain and Reference) geospatial data within the modular GPS Independent Sensors architecture. This Project provides critical alternatives to maneuver forces for position and navigation in a multi-domain operational environment.												
Work in this Project complements Program Element (PE) 0602146A (Network C3I Technology) / Project CV4 (Pathfinder 3D Applied Technology).												
The work cited is consistent with the Under Secretary of Defense for Research and Engineering priority focus areas and the Army Modernization Strategy.												
Work in this Project is performed by the United States Army Engineer Research and Development Center Geospatial Research Laboratory.												
B. Accomplishments/Planned Programs (\$ in Millions)									FY 2024	FY 2025	FY 2026	
Title: PATHFINDER 3D Demonstration									1.007	-	1.335	
Description: This effort will demonstrate and integrate novel Visual Terrain Reference & Navigation (VTRAN) algorithms, onboard sensors, and 3-Dimensional digital terrain to derive position and orientation estimates and apply those to modular Position Navigation and Timing (PNT) integrators.												
FY 2026 Plans:												
Will demonstrate Visual Terrain Reference & Navigation (VTRAN) solutions in applicable testing environments and soldier touch points. Testing will be conducted in GPS-denied/degraded or similar simulated environments.												
FY 2025 to FY 2026 Increase/Decrease Statement:												
Funding increase reflects planned initiation of this effort.												
Accomplishments/Planned Programs Subtotals									1.007	-	1.335	
C. Other Program Funding Summary (\$ in Millions)												
N/A												

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army		Date: June 2025
Appropriation/Budget Activity 2040 / 3	R-1 Program Element (Number/Name) PE 0603463A / Network C3I Advanced Technology	Project (Number/Name) DB6 / Pathfinder 3D Advanced Technology
C. Other Program Funding Summary (\$ in Millions)		
Remarks		
D. Acquisition Strategy		
N/A		

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Army										Date: June 2025		
Appropriation/Budget Activity 2040: Research, Development, Test & Evaluation, Army / BA 3: Advanced Technology Development (ATD)					R-1 Program Element (Number/Name) PE 0603464A / Long Range Precision Fires Advanced Technology							
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
Total Program Element	-	233.806	164.943	162.236	-	162.236	-	-	-	-	-	-
AF2: Long Range Maneuverable Fires (LRMF) Advanced Tech	-	60.465	88.512	70.417	-	70.417	-	-	-	-	-	-
AG5: Extended Range Artillery Munition Suite Adv Tech	-	22.403	-	-	-	-	-	-	-	-	-	-
BO8: Long Range Precision Fires Advanced Tech (CA)	-	56.500	-	-	-	-	-	-	-	-	-	-
BY2: Advanced Hypersonic Technology	-	61.795	43.241	9.906	-	9.906	-	-	-	-	-	-
CE9: Armaments Advanced Technology	-	-	5.326	5.680	-	5.680	-	-	-	-	-	-
CZ8: PrSM Modular Payload Advanced Development	-	32.643	27.864	75.732	-	75.732	-	-	-	-	-	-
DM5: Affordable High Speed Strike	-	-	-	0.501	-	0.501	-	-	-	-	-	-
A. Mission Description and Budget Item Justification												
This Program Element (PE) matures and demonstrates Long Range Precision Fires (LRPF) technologies to destroy, neutralize, or suppress the enemy by cannon artillery and missile fire and enable integration of fire support assets into combined arms operations. Major Focus Areas for LRPF Science and Technology include: Missiles, Cannon Artillery, and Supporting LRPF Technologies covering Strategic, Operational and Tactical Lines of Effort. LRPF Missiles Advanced Development matures and demonstrates a broad range of Missile technologies to enhance Army integrated LRPF capabilities at extended range. Cannon Artillery Advanced Development matures and demonstrates critical technologies to increase range, precision, and both point and area effects for cannon artillery. Supporting LRPF Technologies Advanced Development matures and demonstrates a broad range of component technologies to address weapon cost drivers and enhance performance of future LRPF munitions and systems.												
Research in this Program Element (PE) complements PE 0602147A Long Range Precision Fires Technology.												
This PE is directly aligned to the Army Long Range Precision Fires (LRPF) Modernization Priority.												
The cited research is consistent with the Under Secretary of Defense for Research and Engineering priority focus areas and the Army Modernization Strategy.												

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Army				Date: June 2025		
Appropriation/Budget Activity 2040: Research, Development, Test & Evaluation, Army / BA 3: Advanced Technology Development (ATD)		R-1 Program Element (Number/Name) PE 0603464A / Long Range Precision Fires Advanced Technology				
The FY 2026 request was reduced by \$9.794 million for Advisory and Assistance Services to promote efficiencies and advance the policies of the Administration in alignment with Executive Order 14222, "Implementing the President's Department of Government Efficiency Cost Efficiency Initiative."						
The FY 2026 request was reduced by \$0.932 million for civilian personnel to optimize the workforce in compliance with Executive Order 14210, "Implementing the President's Department of Government Efficiency Workforce Optimization Initiative."						
B. Program Change Summary (\$ in Millions)		FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total
Previous President's Budget		153.024	164.943	139.503	-	139.503
Current President's Budget		233.806	164.943	162.236	-	162.236
Total Adjustments		80.782	0.000	22.733	-	22.733
• Congressional General Reductions		-	-			
• Congressional Directed Reductions		-	-			
• Congressional Rescissions		-	-			
• Congressional Adds		86.500	-			
• Congressional Directed Transfers		-	-			
• Reprogrammings		-0.701	-			
• SBIR/STTR Transfer		-5.017	-			
• Adjustments to Budget Years		-	-	22.733	-	22.733
Congressional Add Details (\$ in Millions, and Includes General Reductions)						
Project: BO8: Long Range Precision Fires Advanced Tech (CA)						
Congressional Add: Advanced Caliber Munitions Demonstration						
Congressional Add: Aluminum lithium alloy solid rocket flight demonstration						
Congressional Add: Digital engineering for missile technology						
Congressional Add: Hypersonic metal alloys						
Congressional Add: Joined tandem wing steerable munition						
Congressional Add: XM 1155 glide flight projectile						
Congressional Add: Radio frequency photonic systems						
Congressional Add Subtotals for Project: BO8						
Congressional Add Totals for all Projects						

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Army		Date: June 2025
Appropriation/Budget Activity 2040: Research, Development, Test & Evaluation, Army / BA 3: Advanced Technology Development (ATD)	R-1 Program Element (Number/Name) PE 0603464A / Long Range Precision Fires Advanced Technology	
<div>Change Summary Explanation</div> <div>Funding increase in Fiscal Year (FY) 2026 from the previous PB to the current PB reflects the net effect of realignments from Program Element (PE) 0603116A (Lethality Advanced Technology); PE 0603464A (Long Range Precision Fires Advanced Technology); PE 0602146A (Network C3I Technology); PE 0602143A (Soldier Lethality Technology); and PE 0602147A (Long Range Precision Fires Technology)</div>		

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army										Date: June 2025		
Appropriation/Budget Activity 2040 / 3					R-1 Program Element (Number/Name) PE 0603464A / Long Range Precision Fires Advanced Technology				Project (Number/Name) AF2 / Long Range Maneuverable Fires (LRMF) Advanced Tech			
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
AF2: Long Range Maneuverable Fires (LRMF) Advanced Tech	-	60.465	88.512	70.417	-	70.417	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This Project directly supports Long Range Precision Fires Modernization Priority capabilities by developing, maturing and demonstrating next generation Multi-Domain Operations extended range weapon system technology for Precision Strike Missile to increase survivability, penetration, and range in complex Anti Access/Area Denial (A2/AD) and denied environments. This Project also includes both the maturation and demonstration of advanced extended range missile technology and autonomous, unmanned launcher technology. The combination of these technologies offers the potential to dramatically increase force projection through increases in range, firepower, and magazine depth.

Work in this Project complements Program Element (PE) 0602147A (Long Range Precision Fires Technology), Project AF1 (Long Range Maneuverable Fires (LRMF) Technology); and PE 0602147A/Project AF8 (Affordable Extended Range Precision); and Project AF3 (Extended Range Propulsion Tech).

The cited work is consistent with the Under Secretary of Defense for Research and Engineering priority focus areas and the Army modernization strategy.

Work in this Project is performed by the Aviation & Missile Center (AvMC).

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2024	FY 2025	FY 2026
Title: Long Range Maneuverable Fires (LRMF) Advanced Tech	60.465	88.512	70.417
Description: Matures and demonstrates next generation Multi-Domain Operations extended range weapon system technology for Precision Strike Missile to increase survivability, penetration lethality, and range in complex A2/AD and denied environments. Includes maturation and demonstration of advanced extended range missile technology and autonomous, unmanned launcher technology.			
FY 2025 Plans: Conduct a series of integrated booster and ramjet demonstrations of propulsion engine concepts to validate performance of the air-breathing propulsion for long range fires; optimizes and matures models to simulate integrated objective system performance; matures seeker/sensor integration for optimal performance and precision; improves survivability by exploiting intel based red-force models and analysis; develops a novel warhead for increased lethality for Precision Strike Missile			
FY 2026 Plans:			

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army		Date: June 2025	
Appropriation/Budget Activity 2040 / 3	R-1 Program Element (Number/Name) PE 0603464A / <i>Long Range Precision Fires Advanced Technology</i>	Project (Number/Name) AF2 / <i>Long Range Maneuverable Fires (LRMF) Advanced Tech</i>	
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2024	FY 2025
<p>Will fabricate prototype missiles for flight demonstrations; demonstrate missile performance in a controlled flight demonstration; refine subsystem performance models and update software based on flight and component demonstration results; perform a culminating guided flight demonstration to validate range and propulsion performance models; and document prototype missile design and performance based on flight demonstration results to support transition from S&T to acquisition program; matures novel warhead with higher energetic density for demonstration in Precision Strike Missile.</p> <p><i>FY 2025 to FY 2026 Increase/Decrease Statement:</i> Funding decrease due to finalizing component development and component demonstrations and focusing on integrated system flights and system demonstrations.</p>			
Accomplishments/Planned Programs Subtotals		60.465	88.512
C. Other Program Funding Summary (\$ in Millions)			
N/A			
Remarks			
D. Acquisition Strategy			
N/A			

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army										Date: June 2025		
Appropriation/Budget Activity 2040 / 3					R-1 Program Element (Number/Name) PE 0603464A / Long Range Precision Fires Advanced Technology				Project (Number/Name) AG5 / Extended Range Artillery Munition Suite Adv Tech			
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
AG5: Extended Range Artillery Munition Suite Adv Tech	-	22.403	-	-	-	-	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note
In Fiscal Year (FY) 2025, this Project is terminated.

A. Mission Description and Budget Item Justification
This Project directly supports Long Range Precision Fires Modernization Priority capabilities. This Project matures and demonstrates extended range artillery technologies including advanced projectile propulsion and guidance technologies to increase range and accuracy.

The cited work is consistent with the Under Secretary of Defense for Research and Engineering priority focus areas and the Army modernization strategy.

Work in this Project is performed by the Armaments Center.

B. Accomplishments/Planned Programs (\$ in Millions)	FY 2024	FY 2025	FY 2026
Title: Extended Range Artillery Munition Suite Advanced Technology	19.944	-	-
Description: Matures and optimizes long range unitary artillery projectile systems in the areas of range, precision, counter-measure, and payload technologies.			
Title: Optionally Manned Artillery Advanced Technology	2.459	-	-
Description: Develop automated cannon artillery solutions for fuze-setting, firing, as well as rearming to exponentially increase rate of fire and out-pace future near-peer, high operational-tempo (OPTEMPO) engagements, and reduce Soldier burden.			
Accomplishments/Planned Programs Subtotals	22.403	-	-

C. Other Program Funding Summary (\$ in Millions)
N/A

Remarks

D. Acquisition Strategy
N/A

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army										Date: June 2025		
Appropriation/Budget Activity 2040 / 3					R-1 Program Element (Number/Name) PE 0603464A / Long Range Precision Fires Advanced Technology				Project (Number/Name) BO8 / Long Range Precision Fires Advanced Tech (CA)			
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
BO8: Long Range Precision Fires Advanced Tech (CA)	-	56.500	-	-	-	-	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note

Congressional Interest Item funding provided for Long Range Precision Advanced Technology.

A. Mission Description and Budget Item Justification

Congressional Interest Item funding provided for Long Range Precision Advanced Technology.

The cited work is consistent with the Under Secretary of Defense for Research and Engineering priority focus areas and the Army Modernization Strategy.

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2024	FY 2025
Congressional Add: Advanced Caliber Munitions Demonstration	10.000	-
FY 2024 Accomplishments: Congressional Interest Item funding provided for caliber munitions demonstration		
Congressional Add: Aluminum lithium alloy solid rocket flight demonstration	5.000	-
FY 2024 Accomplishments: Congressional Interest Item funding provided for Aluminum lithium alloy solid rocket flight demonstration		
Congressional Add: Digital engineering for missile technology	5.000	-
FY 2024 Accomplishments: Congressional Interest Item funding provided for Digital engineering for missile technology		
Congressional Add: Hypersonic metal alloys	7.500	-
FY 2024 Accomplishments: Congressional Interest Item funding provided for hypersonic metal alloys		
Congressional Add: Joined tandem wing steerable munition	5.000	-
FY 2024 Accomplishments: Congressional Interest Item funding provided for joined tandem wing steerable munition		
Congressional Add: XM 1155 glide flight projectile	20.000	-

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army		Date: June 2025	
Appropriation/Budget Activity 2040 / 3	R-1 Program Element (Number/Name) PE 0603464A / Long Range Precision Fires Advanced Technology	Project (Number/Name) BO8 / Long Range Precision Fires Advanced Tech (CA)	
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2024	FY 2025
FY 2024 Accomplishments: Congressional Interest Item funding provided for XM 1155 glide flight projectile			
Congressional Add: Radio frequency photonic systems		4.000	-
FY 2024 Accomplishments: Congressional Interest Item funding provided for Radio frequency photonic systems			
Congressional Adds Subtotals		56.500	-
C. Other Program Funding Summary (\$ in Millions)			
N/A			
Remarks			
D. Acquisition Strategy			
N/A			

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army										Date: June 2025		
Appropriation/Budget Activity 2040 / 3					R-1 Program Element (Number/Name) PE 0603464A / Long Range Precision Fires Advanced Technology				Project (Number/Name) BY2 / Advanced Hypersonic Technology			
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
BY2: Advanced Hypersonic Technology	-	61.795	43.241	9.906	-	9.906	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This Project directly supports Long Range Hypersonic Precision Fires Modernization Priority capabilities by developing and maturing critical technologies for strategic missiles. Technology development includes critical technologies to improve strategic missile components such as advanced structures and materials, thermal protection systems, navigation systems, data links, and seekers/terminal sensors.

Work in this Project complements Program Element (PE) 0603464A (Long Range Precision Fires Advanced Technology) / Project AF2 (Long Range Maneuverable Fires (LRMF) Advanced Tech); and PE 0602147A (Long Range Precision Fires Technology)/ Project AF8 (Affordable Extended Range Precision Technology).

The cited work is consistent with the Under Secretary of Defense for Research and Engineering priority focus areas and the Army modernization strategy.

Work in this Project is performed by the Aviation & Missile Center (AvMC).

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2024	FY 2025	FY 2026
Title: Hypersonics Advanced Technology	61.795	43.241	9.906
Description: This effort matures and demonstrates new subsystems and components of a hypersonic weapon delivery system to defeat Anti Access/Area Denial (A2/AD) capabilities, suppress adversary Long Range Fires, and engage other payoff/ time critical targets.			
FY 2025 Plans: Develop and mature advanced modeling and simulation capability for determining system definition concepts and identification of critical technology performance requirements for future high speed vehicle applications; mature emerging technologies in the development of next generation high temperature materials and aerothermal structures for high speed vehicle applications; mature guidance, navigation and control technology to reduce both size, weight, and power (SWAP) packaging and reduce reliance on GPS for navigation accuracy in contested environments; mature terminal sensor component technologies to include, but not limited to Infrared/Radio Frequency (IR/RF) transparent windows, antennas, and transceivers for high speed vehicle applications; mature emerging propulsion and warhead technologies with greater performance to size/weight ratios.			
FY 2026 Plans:			

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army		Date: June 2025		
Appropriation/Budget Activity 2040 / 3	R-1 Program Element (Number/Name) PE 0603464A / <i>Long Range Precision Fires Advanced Technology</i>	Project (Number/Name) BY2 / <i>Advanced Hypersonic Technology</i>		
B. Accomplishments/Planned Programs (\$ in Millions) Will continue limited maturation of assured navigation, advanced materials and structures, terminal sensor, propulsion, and high-speed effector component technologies; evaluate promising industry subsystem and component technologies for further development. <i>FY 2025 to FY 2026 Increase/Decrease Statement:</i> Funding decrease reflects completion of maturation and demonstration of advanced high temperature materials specifically in support of transition to Long Range Hypersonic Weapon. Funding realigned to Program Element (PE) 0603464A (Long Range Precision Fires Advanced Technology) / Project CZ8 (PrSM Modular Payload Advanced Development).		FY 2024	FY 2025	FY 2026
Accomplishments/Planned Programs Subtotals		61.795	43.241	9.906
C. Other Program Funding Summary (\$ in Millions) N/A Remarks D. Acquisition Strategy N/A				

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army										Date: June 2025		
Appropriation/Budget Activity 2040 / 3					R-1 Program Element (Number/Name) PE 0603464A / Long Range Precision Fires Advanced Technology				Project (Number/Name) CE9 / Armaments Advanced Technology			
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
CE9: Armaments Advanced Technology	-	-	5.326	5.680	-	5.680	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Improve defeat of imprecisely located and relocated/moving targets by leveraging and advancing component technologies in armament technologies (multi-mode g-hardened seekers for cross spectrum targeting, advanced guidance, navigation, and control (GNC) and in-flight update technologies).

Work in this Project complements PE 0602141A (Lethality Technology) / Project AH9 (Advanced Warheads Technology) and PE 0602147A (Long Range Precision Fires Technology) / Project AG4 (Extended Range Artillery Munition Suite Technology) and Project BN5 (Fuze and Power for Munitions).

The cited research is consistent with the Under Secretary of Defense for Research and Engineering priority focus areas and the Army modernization strategy.

Work in this Project is performed by the Armaments Center (AC).

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2024	FY 2025	FY 2026
Title: Strategic Armaments Advanced Tech	-	5.326	3.919
Description: This effort provides performance enhancements for Long Range Fires by developing and integrating cannon artillery automation and rearm, enhanced lethality, munition survivability, precision, and munition collaborations technologies to maximize effects.			
FY 2025 Plans: Will optimize advanced targeting capabilities, multi-modal navigation, kinematic maneuver authority, course correction, collaborative and in-flight targeting, and terminal engagement mechanisms and technologies for artillery systems; mature energetics, warheads, fuzing, and precision component technologies into artillery munitions and submunitions to provide lethal and non-lethal enhanced tactical fires effects for multi-domain operations.			
FY 2026 Plans: Will mature advanced targeting and course correction technologies for continued operations in a contested battlespace; exploit emerging technologies to improve munition survivability and requirements for engagement salvos; mature precision component technologies for in-flight targeting and terminal engagement to deliver lethal and non-lethal enhanced tactical fires effects across domains of operation.			
FY 2025 to FY 2026 Increase/Decrease Statement:			

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army		Date: June 2025		
Appropriation/Budget Activity 2040 / 3	R-1 Program Element (Number/Name) PE 0603464A / Long Range Precision Fires Advanced Technology	Project (Number/Name) CE9 / Armaments Advanced Technology		
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2024	FY 2025	FY 2026
Funding decrease reflects completion of FY25 effort to optimize multi-modal navigation and kinematic maneuver authority and mature energetics and warheads. Funding realigned to Program Element (PE) 0602147A (Long Range Precision Fires Technology) / Project AG4 (Extended Range Artillery Munition Suite Technology).				
Title: Zonable Artillery Propulsion System Description: This effort will optimize artillery propulsion technologies and systems to increase range, improve system performance, and reduce operational risk. Will optimize next generation ignition systems, highly engineered gun propulsion charges, and advanced processing of novel propellants and combustible cases. Matures and demonstrates propulsion charge designs to support new and existing artillery systems that reduce wear and erosion of gun barrels. FY 2026 Plans: Will mature ignition system performance for artillery charge systems by leveraging advanced propellant initiation mechanisms. FY 2025 to FY 2026 Increase/Decrease Statement: Funding increase reflects initiation of Zonable Artillery Propulsion System. Funding realigned from Program Element (PE) 0603116A (Lethality Advanced Technology) / Project CID (Sensor to Shooter (STS) Advanced Technology).		-	-	0.940
Title: Multidomain Artillery Munition Adv Tech Description: This effort matures munition system architectures capable of integrating and demonstrating advanced effects with multiple payload subsystems to include highly maneuverable payload systems, kinetic effects, and non-kinetic/ electronic warfare packages. Optimizes leveraged modular system architectures such as novel fabrication techniques, expulsion systems, and range extension technologies. Matures key payload attributes to more efficiently integrate with extended range projectile airframes. Optimizes munition system architectures and concepts of operations per payload and mission system requirements. Demonstrates payload capabilities with integrated munition systems. FY 2026 Plans: Will mature payload designs and interfaces to provide optimized effectiveness and capabilities within the 155mm operational mission space; begin validation of gun launch survivability models and payload effectiveness through testing of subsystem technologies and demonstrations. FY 2025 to FY 2026 Increase/Decrease Statement: Funding increase reflects initiation of Multidomain Artillery Munition Adv Tech. Funding realigned from Program Element (PE) 0603464A (Long Range Precision Fires Advanced Technology) / Project AG5 (Extended Range Artillery Munition Suite Adv Tech).		-	-	0.821
Accomplishments/Planned Programs Subtotals		-	5.326	5.680

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army		Date: June 2025
Appropriation/Budget Activity 2040 / 3	R-1 Program Element (Number/Name) PE 0603464A / Long Range Precision Fires Advanced Technology	Project (Number/Name) CE9 / Armaments Advanced Technology
C. Other Program Funding Summary (\$ in Millions) N/A		
Remarks		
D. Acquisition Strategy N/A		

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army										Date: June 2025		
Appropriation/Budget Activity 2040 / 3					R-1 Program Element (Number/Name) PE 0603464A / Long Range Precision Fires Advanced Technology				Project (Number/Name) CZ8 / PrSM Modular Payload Advanced Development			
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
CZ8: PrSM Modular Payload Advanced Development	-	32.643	27.864	75.732	-	75.732	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This Project directly supports Long Range Precision Fires Modernization Priority capabilities by maturing and demonstrating critical technologies for autonomous, Cluster Munition policy compliant, enhanced lethality payloads deployed from Precision Strike Missile to autonomously and cooperatively find and engage the full spectrum of deep moved, moving, dispersed, and poorly located targets in areas with contested access at extended ranges.

Work in this Project complements Program Element (PE) 0602147A (Long Range Precision Fires Technology).

The cited work is consistent with the Under Secretary of Defense for Research and Engineering priority focus areas and the Army modernization strategy.

Work in this Project is performed by the Aviation & Missile Center (AvMC).

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2024	FY 2025	FY 2026
Title: Precision Strike Missile (PrSM) Advanced Development/PrSM Modular Payload	2.735	2.814	11.682
Description: Mature and demonstrate critical technologies for the delivery of distributed and enhanced lethality capabilities via extended range missiles. Technology examples include: sensor and associated signal processing technologies for target acquisition, identification, and engagement; datalink and communications technologies to transmit targetable data; compact propulsion technologies to enable dwell time on station; payload dispensing technologies for deploying these payloads from high speed long range missiles; and advanced extended range missile propulsion and guidance technologies.			
FY 2025 Plans: Will optimize components for modular payloads such as submunition guidance, six-degree of freedom model development, sensor packaging and algorithms, warhead performance, and airframe design; conduct wind tunnel demonstrations to optimize aerodynamic design; perform quantitative analysis on six-degree-of-freedom simulations against scenario specific vignettes.			
FY 2026 Plans: Will mature submunition component technologies to include warhead performance, submunition guidance and targeting, and autonomous collaboration algorithms; mature dispense system designs through high-fidelity six-degree of freedom model development; perform design reviews; and demonstrate autonomous collaborative engagement on a surrogate airframe.			
FY 2025 to FY 2026 Increase/Decrease Statement:			

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army		Date: June 2025		
Appropriation/Budget Activity 2040 / 3	R-1 Program Element (Number/Name) PE 0603464A / Long Range Precision Fires Advanced Technology	Project (Number/Name) CZ8 / PrSM Modular Payload Advanced Development		
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2024	FY 2025	FY 2026
Funding increase to support validation of autonomous collaborative target engagements through a demonstration on a surrogate airframe. Funding realigned from Program Element (PE) 0602146A (Network C3I Technology) / Project CU6 (Adaptive Information Mediation and Analytics).				
Title: Sensor Fuzed Weapon Development		29.908	25.050	64.050
Description: This Project matures and demonstrates a sensor fuzed weapon (SFW) and rocket prototypes to validate a capability to engage armored and mechanized forces utilizing the Extended Range Guided Multiple Launch Rocket System (ER GMLRS) and High Mobility Rocket Artillery System as the delivery vehicle. The SFW prototype will consist of a munition dispenser containing multiple submunitions. The project will optimize the SFW submunitions and rockets to independently acquire, identify, and engage these targets. In order to support an accelerated demonstration schedule, initial efforts will be focused on demonstration of SFW on a standard range GMLRS				
FY 2025 Plans: Optimize the SFW payload munition design and conduct a Design Review; mature critical dispense mechanism and submunition component hardware and software, and perform subsystem testing to support integration of the SFW payload into a GMLRS form-factor; develop rocket components and launch pod configuration to support high volume, 30 x rockets, load out and conducts design review.				
FY 2026 Plans: Will continue to optimize both dispense system and submunition designs; advance seeker/sensor technology characterization and perform multiple component-level demonstrations; develop program-specific targeting and submunition collaboration algorithms; and conduct a payload dispense demonstration to validate dispense system performance ;matures and finalizes rocket and launch pod configuration to support high volume fires.				
FY 2025 to FY 2026 Increase/Decrease Statement: Funding increase in Fiscal Year (FY) 2026 to support the Science and Technology (S&T) level of effort required to mature technologies for the Sensor Fuzed Weapon and rocket applications while reducing risk through dispense and payload flight demonstrations. Funding increase will also support maturation and validation of sensor modalities. Funding realigned from Program Element (PE) 0602143A (Soldier Lethality Technology) / Project AZ2 (Body Armor & Integrated Headborne Technology).				
Accomplishments/Planned Programs Subtotals		32.643	27.864	75.732
C. Other Program Funding Summary (\$ in Millions)				
N/A				
Remarks				

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army		Date: June 2025
Appropriation/Budget Activity 2040 / 3	R-1 Program Element (Number/Name) PE 0603464A / Long Range Precision Fires Advanced Technology	Project (Number/Name) CZ8 / PrSM Modular Payload Advanced Development
D. Acquisition Strategy N/A		

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army										Date: June 2025		
Appropriation/Budget Activity 2040 / 3					R-1 Program Element (Number/Name) PE 0603464A / Long Range Precision Fires Advanced Technology				Project (Number/Name) DM5 / Affordable High Speed Strike			
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
DM5: Affordable High Speed Strike	-	-	-	0.501	-	0.501	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note

Affordable High Speed Strike is a new start within the Long Range Precision Fires Advanced Technology program in FY 2026.

In Fiscal Year (FY) 2026, this Project is a New Start.

A. Mission Description and Budget Item Justification

This Project directly supports Long Range Precision Fires Modernization Priority capabilities by developing, maturing, and demonstrating affordable high speed strike missile technologies for responsive, mobile, deployable, survivable, and sustainable Army conventional theater strike weapons unconstrained by previous treaties. Provide hardware and software technologies demonstrated, including affordable advanced propulsion, complementary warhead, guidance, navigation and control technologies, and integration onto Army mobile launch platforms. The Army needs affordable, responsive high speed strike capability to attack theater level targets, provide offensive counter-air capability, and be launched from Army mobile, deployable, and survivable platforms.

Work in this Project complements Program Element (PE) 0603464A (Long Range Precision Fires Advanced Technology) / Project BY2 (Advanced Hypersonics Technology), PE 0602147A (Long Range Precision Fires Technology) / Project AF8 (Affordable Extended Range Precision Tech and Program) and Project AF3 (Extended Range Propulsion Tech)

The cited work is consistent with the Under Secretary of Defense for Research and Engineering priority focus areas and the Army Modernization Strategy.

Work in this Project is performed by the Aviation & Missile Center (AvMC).

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2024	FY 2025	FY 2026
Title: AHSS Technology Maturation	-	-	0.501
Description: Develop and demonstrate affordable high speed strike missile technologies for responsive, mobile, deployable, survivable and sustainable Army conventional theater strike weapons unconstrained by previous treaties. Provide hardware and software technologies demonstrated, including affordable advanced propulsion, complementary warhead, guidance, navigation and control technologies, and integration onto Army mobile launch platforms.			
FY 2026 Plans:			

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army		Date: June 2025	
Appropriation/Budget Activity 2040 / 3	R-1 Program Element (Number/Name) PE 0603464A / <i>Long Range Precision Fires Advanced Technology</i>	Project (Number/Name) DM5 / <i>Affordable High Speed Strike</i>	
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2024	FY 2025
Will focus on mission analysis and system design; conduct operational analysis and concept definition refinement to determine performance metrics and goals for technology and component advanced development.			
FY 2025 to FY 2026 Increase/Decrease Statement: In Fiscal Year (FY) 2026, this Project is a New Start for technology development for responsive, mobile, deployable, survivable, and sustainable Army conventional theater strike weapons. Funding realigned from Program Element 0602147A (Long Range Precision Fires Technology) / Project AF3 (Extended Range Propulsion Technology).			
Accomplishments/Planned Programs Subtotals		-	0.501
C. Other Program Funding Summary (\$ in Millions) N/A			
Remarks			
D. Acquisition Strategy N/A			

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Army										Date: June 2025		
Appropriation/Budget Activity 2040: Research, Development, Test & Evaluation, Army / BA 3: Advanced Technology Development (ATD)					R-1 Program Element (Number/Name) PE 0603465A / Future Vertical Lift Advanced Technology							
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
Total Program Element	-	219.137	175.369	66.686	-	66.686	-	-	-	-	-	-
AJ9: Integ Mission Equip for Vert Lift Systems Adv Tech	-	16.604	2.396	-	-	-	-	-	-	-	-	-
AK5: Multi-Role Small Guided Missile Advanced Tech	-	11.554	6.105	-	-	-	-	-	-	-	-	-
AK8: Air Launched Effects Advanced Technology	-	27.143	20.615	-	-	-	-	-	-	-	-	-
AL1: Adv Teaming for Tactical Aviation Oper Adv Tech	-	38.920	35.036	25.135	-	25.135	-	-	-	-	-	-
AL7: Full Spectrum Targeting Advanced Technology	-	8.768	8.651	6.222	-	6.222	-	-	-	-	-	-
AL9: Holistic Sit Awareness and Dec Making Adv Tech	-	20.476	7.451	10.858	-	10.858	-	-	-	-	-	-
BP8: Future Vertical Lift Air Platform Adv Tech (CA)	-	64.750	50.850	-	-	-	-	-	-	-	-	-
CA8: Adv Rotocraft Armaments Protection Sys	-	6.225	4.764	0.201	-	0.201	-	-	-	-	-	-
CC4: FVL Radar Advanced Technologies	-	4.242	-	2.253	-	2.253	-	-	-	-	-	-
CG1: Holistic Team Survivability Adv Tech	-	14.919	14.438	10.447	-	10.447	-	-	-	-	-	-
CH7: Power & Thermal Management for FVL Adv Tech	-	4.222	-	-	-	-	-	-	-	-	-	-
CI8: Adaptive Avionics Advanced Technologies	-	-	7.469	7.591	-	7.591	-	-	-	-	-	-
CJ5: Future Vertical Lift Medical Advanced Technology	-	1.314	1.595	1.354	-	1.354	-	-	-	-	-	-
CK2: High Speed Maneuverable Missile (HSMM) Adv Tech	-	-	15.999	2.625	-	2.625	-	-	-	-	-	-

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Army				Date: June 2025		
Appropriation/Budget Activity 2040: Research, Development, Test & Evaluation, Army / BA 3: Advanced Technology Development (ATD)		R-1 Program Element (Number/Name) PE 0603465A / Future Vertical Lift Advanced Technology				
A. Mission Description and Budget Item Justification						
This Program Element (PE) matures and demonstrates manned and unmanned air vehicle and mission system technologies as well as advanced teaming capabilities to enable Army Future Vertical Lift. Emphasis is on platform and mission system technologies to enhance manned and unmanned air vehicle combat and combat support operations for attack, reconnaissance, air assault, survivability, logistics, and command and control missions. Within this PE, aviation technologies are advanced and integrated into realistic and robust demonstrations.						
Research in this PE contributes to the Army Science and Technology (S&T) air systems portfolio and is fully coordinated with efforts in PE 0602148A (Future Vertical Lift Technology), PE 0602183A (Air Platform Applied Research) and PE 0603043A (Air Platform Advanced Technology).						
A portion of this PE is directly aligned to the Future Vertical Lift (FVL) Army Modernization Priority.						
The cited research is consistent with the Under Secretary of Defense for Research and Engineering S&T focus areas and the Army Modernization Strategy.						
The FY 2026 request was reduced by \$9.46 million for Advisory and Assistance Services to promote efficiencies and advance the policies of the Administration in alignment with Executive Order 14222, "Implementing the President's Department of Government Efficiency Cost Efficiency Initiative."						
The FY 2026 request was reduced by \$0.453 million for civilian personnel to optimize the workforce in compliance with Executive Order 14210, "Implementing the President's Department of Government Efficiency Workforce Optimization Initiative."						
B. Program Change Summary (\$ in Millions)		FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total
Previous President's Budget		158.795	140.578	146.603	-	146.603
Current President's Budget		219.137	175.369	66.686	-	66.686
Total Adjustments		60.342	34.791	-79.917	-	-79.917
• Congressional General Reductions		-	-			
• Congressional Directed Reductions		-	-5.459			
• Congressional Rescissions		-	-			
• Congressional Adds		64.750	50.850			
• Congressional Directed Transfers		-	-			
• Reprogrammings		0.001	-			
• SBIR/STTR Transfer		-4.409	-			
• Adjustments to Budget Years		-	-10.600	-79.917	-	-79.917
Congressional Add Details (\$ in Millions, and Includes General Reductions)				FY 2024		FY 2025
Project: BP8: Future Vertical Lift Air Platform Adv Tech (CA)						

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Army		Date: June 2025	
Appropriation/Budget Activity 2040: <i>Research, Development, Test & Evaluation, Army / BA 3: Advanced Technology Development (ATD)</i>		R-1 Program Element (Number/Name) PE 0603465A / <i>Future Vertical Lift Advanced Technology</i>	
<u>Congressional Add Details (\$ in Millions, and Includes General Reductions)</u>		FY 2024	FY 2025
Congressional Add: <i>Additive manufacturing for maintenance, repair, and overhaul operations</i>		8.000	-
Congressional Add: <i>Advanced air mobility</i>		5.000	-
Congressional Add: <i>Autonomous Configuration Management And Aviation Records</i>		2.000	-
Congressional Add: <i>Composite structure research for aircraft</i>		5.000	-
Congressional Add: <i>Data Refinement And Optimization For Aviation Sustainment</i>		4.500	-
Congressional Add: <i>FLEETSPACE helicopter maintenance management tool</i>		4.750	-
Congressional Add: <i>High performance steels for improved drive system</i>		3.000	-
Congressional Add: <i>Multi mission capability for unmanned aircraft</i>		1.000	-
Congressional Add: <i>Platform Digitization And Maintenance</i>		5.500	4.850
Congressional Add: <i>Surface tolerant adhesives</i>		6.000	-
Congressional Add: <i>VTOL rotor blade efficiency enhancements</i>		20.000	-
Congressional Add: <i>advanced helicopter seating system</i>		-	15.000
Congressional Add: <i>ballistic tolerant self-sealing hose</i>		-	10.000
Congressional Add: <i>composite oil reservoir</i>		-	10.000
Congressional Add: <i>composite material sustainment modernization</i>		-	11.000
Congressional Add Subtotals for Project: BP8		64.750	50.850
Congressional Add Totals for all Projects		64.750	50.850
<u>Change Summary Explanation</u>			
Funding increase is to leverage to support for aviation enabling technology, to support transition of aviation technology and for Sensor-Fuzed Weapon.			

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army										Date: June 2025		
Appropriation/Budget Activity 2040 / 3					R-1 Program Element (Number/Name) PE 0603465A / Future Vertical Lift Advanced Technology				Project (Number/Name) AJ9 / Integ Mission Equip for Vert Lift Systems Adv Tech			
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
AJ9: Integ Mission Equip for Vert Lift Systems Adv Tech	-	16.604	2.396	-	-	-	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		
Note In Fiscal Year (FY) 2025, this Project is completed.												
A. Mission Description and Budget Item Justification This Project matures and demonstrates a mission systems architecture to support Future Vertical Lift (FVL) through utilization of a reconfigurable and flexible tiered architectural approach. Work in this Project is fully coordinated with Program Element (PE) 0602148A (Future Vertical Lift Technology). The cited work is consistent with the Under Secretary of Defense for Research and Engineering Science and Technology focus areas and the Army Modernization Strategy. Work in this Project is performed by the Aviation & Missile Center (AvMC).												
B. Accomplishments/Planned Programs (\$ in Millions)									FY 2024	FY 2025	FY 2026	
Title: Integrated Mission Equipment for Vertical Lift Systems									16.604	2.396	-	
Description: Develops and demonstrates a mission systems architecture to support FVL through utilization of a reconfigurable and flexible tiered architectural approach. The approach will consist of the following: Maturing and implementing Model Based Engineering methods and Modular Open Systems Architecture strategies; instantiating an architecture verification environment and developing an agile and resilient digital backbone to support the rapidly changing threat environment including the digital battleground.												
FY 2025 Plans: Will complete integration and demonstration of mission system components in the Mission Systems Flying Test Bed (MSFTB) lab and flight test on experimental UH-60M aircraft; document lessons learned, complete transition products, and provide support for adoption.												
FY 2025 to FY 2026 Increase/Decrease Statement:												

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army		Date: June 2025		
Appropriation/Budget Activity 2040 / 3	R-1 Program Element (Number/Name) PE 0603465A / Future Vertical Lift Advanced Technology	Project (Number/Name) AJ9 / Integ Mission Equip for Vert Lift Systems Adv Tech		
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2024	FY 2025	FY 2026
Funding decrease reflects completion of this effort.				
Accomplishments/Planned Programs Subtotals		16.604	2.396	-
C. Other Program Funding Summary (\$ in Millions)				
N/A				
Remarks				
D. Acquisition Strategy				
N/A				

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army										Date: June 2025		
Appropriation/Budget Activity 2040 / 3					R-1 Program Element (Number/Name) PE 0603465A / Future Vertical Lift Advanced Technology				Project (Number/Name) AK5 / Multi-Role Small Guided Missile Advanced Tech			
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
AK5: Multi-Role Small Guided Missile Advanced Tech	-	11.554	6.105	-	-	-	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note

In Fiscal Year (FY) 2025, this Project is completed.

A. Mission Description and Budget Item Justification

This Project matures and demonstrates a holistic lethality solution for current Army Aviation and Future Vertical Lift (FVL) Modernization Priority. This Project matures and demonstrates critical technology and designs components for future affordable rockets and missiles to provide overwhelming defeat of conventional and asymmetrical threats in all environments. Matures and demonstrates component technologies to enable an expeditionary short-to-medium range loitering maneuvering missile with man-in-the-loop capability for situational awareness, targeting, and lethal effects against hard and soft targets; and matures and demonstrates critical component technology and designs for future missiles that provide simultaneous multiple launch, control, and supervised autonomous terminal engagement of multiple missiles.

Work in this Project is fully coordinated with Program Element (PE) 0602148A (Future Vertical Lift Technology) / Project AK4 (Multi-Role Small Guided Missile Tech).

The cited work is consistent with the Under Secretary of Defense for Research and Engineering Science and Technology focus areas and the Army Modernization Strategy.

Work in this Project is performed by the Aviation & Missile Center (AvMC).

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2024	FY 2025	FY 2026
Title: Multiple Simultaneous Engagement Technologies (MSET)	11.554	6.105	-
Description: Matures and demonstrates critical component technology and designs for future missiles that provide simultaneous multiple launch, control, and supervised autonomous terminal engagement of multiple missiles against stationary and moving hard/soft targets, image-based target discrimination/shared situation awareness/lock-on, and multi-missile control digital datalink with inter-missile cooperative networked communications. The end-state is a multi-missile Organic command and control (C2) solution that handles all aspects of sensor integration, fire control, and airspace management. This capability will support overwhelming lethal effects against anti-access/aerial denial (A2AD) / Integrated Air Defense Systems (IADS).			
FY 2025 Plans:			

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army		Date: June 2025		
Appropriation/Budget Activity 2040 / 3	R-1 Program Element (Number/Name) PE 0603465A / <i>Future Vertical Lift Advanced Technology</i>	Project (Number/Name) AK5 / <i>Multi-Role Small Guided Missile Advanced Tech</i>		
B. Accomplishments/Planned Programs (\$ in Millions) Will perform system level demonstration of MSET integrated system to include fire control, command & control, collaborative autonomy, real time multi-agent re-tasking and target acquisition and de-confliction; the demonstration will include simultaneous engagements of stationary and moving target while reducing operator workload; validate MSET HWIL and high-fidelity simulation with system level demonstration data. <i>FY 2025 to FY 2026 Increase/Decrease Statement:</i> Funding decrease reflects completion of this effort.		FY 2024	FY 2025	FY 2026
Accomplishments/Planned Programs Subtotals		11.554	6.105	-
C. Other Program Funding Summary (\$ in Millions) N/A Remarks D. Acquisition Strategy N/A				

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army										Date: June 2025		
Appropriation/Budget Activity 2040 / 3					R-1 Program Element (Number/Name) PE 0603465A / Future Vertical Lift Advanced Technology				Project (Number/Name) AK8 / Air Launched Effects Advanced Technology			
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
AK8: Air Launched Effects Advanced Technology	-	27.143	20.615	-	-	-	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		
A. Mission Description and Budget Item Justification												
This Project develops and demonstrates the ability to launch an Unmanned Aircraft System (UAS) from a manned or unmanned Future Vertical Lift (FVL) aircraft at tactical altitudes and to control the UAS from the cockpit or a crew station; and assesses the enabled capabilities and determine their relevance to current Army Aviation engagement and survivability portfolios.												
Work in this Project is fully coordinated with Program Element (PE) PE 0602148A (Future Vertical Lift Technology) / Project CH2 (Air Launched Effects Technology).												
The cited work is consistent with the Under Secretary of Defense for Research and Engineering Science and Technology focus areas and the Army Modernization Strategy.												
Work in this Project is performed by the Aviation & Missile Center (AvMC).												
B. Accomplishments/Planned Programs (\$ in Millions)									FY 2024	FY 2025	FY 2026	
Title: Air Launched Effects									27.143	20.615	-	
Description: Develop and demonstrate the ability to launch a future unmanned aircraft system (FUAS) from FVL platform at tactical altitudes, and to control the UAS from the cockpit or a crew station. Assess the enabled capabilities and determine their relevance to current Army Aviation engagement and survivability portfolios. These air-launched FUAS will employ a variety of non-lethal effects including: electronic attack, decoy, and communications relay.												
FY 2025 Plans:												
Will demonstrate in flight launch capability of air launched effects prototype UAS and interfaces compatibility with future aircraft. Will demonstrate decoy and disrupt electronic warfare (EW) air launched effects capabilities through multi- UAS behaviors and payloads. Will evaluate range and throughput capabilities of secure, anti-jam communications payloads during teamed flight operations. Will demonstrate teams of Detect, Identify, Locate, and Report (DILR), Decoy, Disrupt, and Lethal air launched effects UAS, equipped with advanced teaming software, executing synchronized operations facilitating integrated air defense system (IADS) breach capability through participation in Joint All-Domain Operations.												
FY 2025 to FY 2026 Increase/Decrease Statement:												

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army		Date: June 2025		
Appropriation/Budget Activity 2040 / 3	R-1 Program Element (Number/Name) PE 0603465A / Future Vertical Lift Advanced Technology	Project (Number/Name) AK8 / Air Launched Effects Advanced Technology		
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2024	FY 2025	FY 2026
Funding decrease reflects completion of this effort.				
Accomplishments/Planned Programs Subtotals		27.143	20.615	-
C. Other Program Funding Summary (\$ in Millions)				
N/A				
Remarks				
D. Acquisition Strategy				
N/A				

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army										Date: June 2025		
Appropriation/Budget Activity 2040 / 3					R-1 Program Element (Number/Name) PE 0603465A / Future Vertical Lift Advanced Technology				Project (Number/Name) AL1 / Adv Teaming for Tactical Aviation Oper Adv Tech			
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
AL1: Adv Teaming for Tactical Aviation Oper Adv Tech	-	38.920	35.036	25.135	-	25.135	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This Project matures, demonstrates and drafts frameworks for autonomous teaming behaviors, autonomous decision making, targeting and visualization concepts in complex environments for Future Vertical Lift (FVL) and Future Unmanned Aircraft System (FUAS) platform formations in combined arms operations.

Work in this Project is fully coordinated with Program Element (PE) 0602148A (Future Vertical Lift Technology) / Project AK9 (Adv Teaming for Tactical Aviation Operations Tech).

The cited work is consistent with the Under Secretary of Defense for Research and Engineering Science and Technology focus areas and the Army modernization strategy.

Work in this Project is performed by the Aviation & Missile Center (AvMC) and Command, Control, Communication, Computers, Cyber, Intelligence, Surveillance and Reconnaissance (C5ISR) Center.

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2024	FY 2025	FY 2026
Title: Sensors / Multi-Function Imagers for Future Aviation	8.245	8.043	-
Description: Mature and demonstrate multi-function sensing system concepts to increase FVL manned platform survivability and situational awareness. This will enable the manned FVL platforms to engage in multi-domain advanced teaming operations and leverage autonomous behaviors of both manned and unmanned aviation platforms. This effort will enable tactical operations in complex environments (e.g. high threat, degraded visuals, and urban) through the use of sensing modules suitable for multiple tactical applications. The multifunction sensor approach will mitigate the need for separate dedicated threat warning and situational awareness imaging sensor modules, thus reducing the total cost and logistics burden for future aviation systems.			
FY 2025 Plans: Will improve threat warning performance through continued multi spectral sensing data collections; demonstrate multispectral sensor in urban environments; optimize and ruggedize flight sensor; demonstrate interim capabilities of a multi-function sensor compared to current fleet baseline.			
FY 2025 to FY 2026 Increase/Decrease Statement:			

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army			Date: June 2025		
Appropriation/Budget Activity 2040 / 3		R-1 Program Element (Number/Name) PE 0603465A / <i>Future Vertical Lift Advanced Technology</i>		Project (Number/Name) AL1 / <i>Adv Teaming for Tactical Aviation Oper Adv Tech</i>	
B. Accomplishments/Planned Programs (\$ in Millions)			FY 2024	FY 2025	FY 2026
Funding decrease reflects completion of this effort. Funding realigned within this Project.					
Title: Complex Advanced Teaming Operations Description: Mature and demonstrate teaming behaviors and autonomous decision making for mixed FVL and FUAS platform formations in complex and contested operational environments. Focus includes maturing solutions that overcome unique challenges associated with autonomy, teaming, range, communication, navigation and mission operations in littoral and urban / fringe environments, while adhering to Modular Open Systems Approach (MOSA) strategy for rapid insertion and affordability. FY 2025 Plans: Will demonstrate autonomous team-of-teams synchronized operations across domains to facilitate an integrated air defense system (IADS) breach capability in contested conditions; initiate extension of Modular Open Systems Approach (MOSA) architecture to address unique challenges associated with operations in complex urban / fringe and littoral environments, and begin evaluating open systems attributes through integration of mixed AI and non-AI technologies, including highly-autonomous coordinated team mission behaviors, navigation and mission execution at low altitude in featureless and cluttered terrain, and sophisticated behaviors for employment of targeted electronic attack using teams of UAS. FY 2026 Plans: Will initiate integrating a mix of AI and non-AI component technologies into an autonomy software suite utilizing the established Modular Open Systems Approach (MOSA) architecture to enable UAS team-of-teams ecosystem operations in contested, complex urban / fringe and littoral environments with degraded networks; mature and test, through persistent experimentation using modeling and simulation and limited small-scale flight testing, autonomy and teaming technologies that build in behavior resilience to dynamically adjust to component failures and enhance contingency management for extended duration operations with no human intervention required. FY 2025 to FY 2026 Increase/Decrease Statement: Funding decrease reflects reduction in the breadth and pace of capability maturation and integration in FY26, as well as reduction in the scale and frequency of flight testing.			30.675	26.993	17.018
Title: Advanced Target Acquisition Capabilities for Aviation Payloads Description: Mature and demonstrate advanced sensor payloads employing compact novel, lightweight advanced airborne optics to extend the target acquisition range across all desired imaging bands and improve survivability and lethality of small to medium sized unmanned aerial system (UAS). These sensor payloads will detect and recognize threats at extended ranges that support threat acquisition timelines required for remote airframes to acquire/socialize/respond to actionable threat information. Demonstrate payload automation to enable wide area reconnaissance detection and targeting functions. Exploit multiple payload modalities to inform target search and detection for teamed UAS platforms.			-	-	5.206

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army			Date: June 2025		
Appropriation/Budget Activity 2040 / 3		R-1 Program Element (Number/Name) PE 0603465A / <i>Future Vertical Lift Advanced Technology</i>		Project (Number/Name) AL1 / <i>Adv Teaming for Tactical Aviation Oper Adv Tech</i>	
B. Accomplishments/Planned Programs (\$ in Millions)			FY 2024	FY 2025	FY 2026
<i>FY 2026 Plans:</i> Will validate appropriate payload volume and weight constraints versus stabilization and range performance for SWaP-C constrained unmanned aerial system (UAS) and launched effects platforms; mature scalable, novel optics and optical bench components to optimize performance while reducing SWaP-C; validate design trades utilizing operational concepts and flight profiles with modeling and simulation; conduct laboratory and flight demonstrations of component optical bench hardware to validate improved performance as compared to legacy off-the-shelf UAS payloads.					
<i>FY 2025 to FY 2026 Increase/Decrease Statement:</i> Funding increase reflects initiation of Advanced Target Acquisition Capabilities for Aviation Payloads. Funding realigned from within this Project.					
<i>Title:</i> Heads-Up Eyes-Out (HUEO) Sensing for Aviation <i>Description:</i> Mature and develop platform agnostic sensing, processing and display capabilities for robust situational awareness to Army Aviators operating in complex threat environments and challenging weather and terrain conditions, leading to improved situational awareness, survivability, teaming and crew coordination. This effort will enable Aviation platforms to maintain safe separation between the ground, obstacles and adjacent aircraft in all weather conditions, reducing the loss of aircraft and/or death or injury to crewmembers. This situational awareness system will adhere to the Modular Open Systems Approach (MOSA) strategy for rapid insertion and affordability across multiple air platforms.			-	-	2.911
<i>FY 2026 Plans:</i> Will mature a test bed platform to support integration and demonstration of heads-up display, degraded visual environment sensors and other component devices; begin Aviation Qualification and Airworthiness Release (AWR) process of Heads-Up Eyes-Out components and test bed to enable optimized component interoperability and maturation.					
<i>FY 2025 to FY 2026 Increase/Decrease Statement:</i> Funding increase reflects initiation of Heads-Up Eyes-Out (HUEO) Sensing for Aviation. Funding realigned from within this Project and from Program Element (PE) 0603465A (Future Vertical Lift Advanced Technology) / Project AL7 (Full Spectrum Targeting Advanced Technology).					
Accomplishments/Planned Programs Subtotals			38.920	35.036	25.135
C. Other Program Funding Summary (\$ in Millions)					
N/A					
Remarks					

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army		Date: June 2025
Appropriation/Budget Activity 2040 / 3	R-1 Program Element (Number/Name) PE 0603465A / Future Vertical Lift Advanced Technology	Project (Number/Name) AL1 / Adv Teaming for Tactical Aviation Oper Adv Tech
D. Acquisition Strategy N/A		

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army										Date: June 2025		
Appropriation/Budget Activity 2040 / 3					R-1 Program Element (Number/Name) PE 0603465A / Future Vertical Lift Advanced Technology				Project (Number/Name) AL7 / Full Spectrum Targeting Advanced Technology			
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
AL7: Full Spectrum Targeting Advanced Technology	-	8.768	8.651	6.222	-	6.222	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This Project demonstrates next generation targeting concepts for Future Vertical Lift (FVL) and Future Unmanned Aircraft System (FUAS) platforms. Matures automated threat detection algorithm and payload technologies that enable manned and unmanned Army aviation platforms to meet Electro-Optic / Infrared (EO/IR) Detect, Identify, Locate and Report (DILR) requirements in the forward line of sensors for Army Aviation.

Work in this Project is fully coordinated with Program Element (PE) 0602148A (Future Vertical Lift Technology) / Project AK9 (Advanced Teaming for Tactical Aviation Operations Technology).

The cited work is consistent with the Under Secretary of Defense for Research and Engineering Science and Technology focus areas and the Army modernization strategy.

Work in this Project is performed by the Command, Control, Communication, Computers, Cyber, Intelligence, Surveillance and Reconnaissance (C5ISR) Center.

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2024	FY 2025	FY 2026
Title: Full Spectrum Targeting	8.768	8.651	6.222
Description: This effort will mature and demonstrate key targeting sensor system concepts to enable the FVL and FUAS modernization priorities. Effort will leverage advancements in laser, infrared imaging focal plane arrays, compact long-range optics, and multispectral system technologies to develop a stabilized, payload that can actively and/or passively image in multiple spectral bands simultaneously to provide robust targeting and situational awareness capabilities for the prevailing battlefield conditions. Effort will demonstrate the ability of multispectral sensing to autonomously scan areas of interest and identify tactical threats with reduced cognitive workloads through sensor fusion and automated spectral selection.			
FY 2025 Plans: Will provide updated baseline sensor architecture specifications for steerable turret with dual-band infrared sensor paired with novel compact long-range optical components; optimize performance of improved multi-band fused Aided Target Detection and Recognition (AiTD/R) approaches; demonstrate Aided Target Detection/Recognition (AiTD/R) with long range optics and improved			

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army		Date: June 2025	
Appropriation/Budget Activity 2040 / 3	R-1 Program Element (Number/Name) PE 0603465A / <i>Future Vertical Lift Advanced Technology</i>	Project (Number/Name) AL7 / <i>Full Spectrum Targeting Advanced Technology</i>	
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2024	FY 2025
<p>performance against military and Camouflage, Concealment, and Deception (CC&D) targets in relevant environments, to include DVE; optimize AiTD/R hardware processing solution design in support of FUAS aircraft.</p> <p><i>FY 2026 Plans:</i> Will mature and integrate scaled/optimized Aided Target Detection and Recognition (AiTD/R) into payloads for small to medium sized UAS platforms; demonstrate improved AiTD/R performance scaled for UAS application on a surrogate UAS platform against militarily relevant targets. Will provide sensor and processing hardware recommendations and trained baseline AiTD/R algorithms for various UAS Concept of Operations (CONOPS).</p> <p><i>FY 2025 to FY 2026 Increase/Decrease Statement:</i> Funding decrease represents realignment of funds to Program Element (PE) 0603465A (Future Vertical Lift Advanced Technology) / Project AL1 (Adv Teaming for Tactical Aviation Oper Adv Tech) for development of a heads-up eyes-out sensing capability for aviators.</p>			
Accomplishments/Planned Programs Subtotals		8.768	8.651
C. Other Program Funding Summary (\$ in Millions)			
N/A			
Remarks			
D. Acquisition Strategy			
N/A			

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army										Date: June 2025		
Appropriation/Budget Activity 2040 / 3					R-1 Program Element (Number/Name) PE 0603465A / Future Vertical Lift Advanced Technology				Project (Number/Name) AL9 / Holistic Sit Awareness and Dec Making Adv Tech			
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
AL9: Holistic Sit Awareness and Dec Making Adv Tech	-	20.476	7.451	10.858	-	10.858	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This Project matures and demonstrates a pilotage and decision aiding system that allows for carefree operations in complex and hostile environments through demonstration of a comprehensive human machine interface for all situational awareness (SA) domains (terrain & obstacles, threat, weather, & environment); and demonstration of decision aiding technologies to reduce cognitive loading of air crews during operations in complex and hostile environments.

Work in this Project is fully coordinated with Program Element (PE) PE 0602148A (Future Vertical Lift Technology) / AL8 (Holistic Situational Awareness and Dec Making Tech).

The cited work is consistent with the Under Secretary of Defense for Research and Engineering Science and Technology focus areas and the Army modernization strategy.

Work in this Project is performed by the U.S. Army Combat Capabilities Development Command (DEVCOM) Analysis Center (DAC) and Aviation & Missile Center (AvMC).

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2024	FY 2025	FY 2026
Title: Holistic Situational Awareness and Decision Making	12.430	5.551	1.070
Description: This program directly contributes to Future Vertical Lift (FVL) to ensure Future Aircraft pilots have the necessary situational awareness, accurate understanding of the tactical mission, and ability to decide faster than our adversaries.			
FY 2025 Plans: Will mature and demonstrate information portrayal and related data management capabilities, advanced communication management and situation awareness capabilities, and design and prepare for lab demonstrations in FY26 in support of Army Aviator mission task performance.			
FY 2026 Plans: Will perform programmatic wrap-up and findings, publish/submit remaining deliverables to Stakeholders.			
FY 2025 to FY 2026 Increase/Decrease Statement:			

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army			Date: June 2025		
Appropriation/Budget Activity 2040 / 3		R-1 Program Element (Number/Name) PE 0603465A / <i>Future Vertical Lift Advanced Technology</i>	Project (Number/Name) AL9 / <i>Holistic Sit Awareness and Dec Making Adv Tech</i>		
B. Accomplishments/Planned Programs (\$ in Millions)			FY 2024	FY 2025	FY 2026
Funding decrease reflects the remaining activities limited to program and demonstration close out. Funding realigned within Project and to Program Element (PE) 0603043A (Air Platform Advanced Technology) / Project CX1 (Advanced Rotors Advanced Tech).					
Title: Multi-function RF for FVL Platforms			5.997	-	-
Description: This effort matures and demonstrates multi-function radio-frequency (RF) sensor technologies to support the FVL family of systems. It provides integrated software and hardware technologies that enable the use of common electronics and system components to support varied functions, such as enhanced situational awareness, threat-detection and localization, targeting, communications, and aircraft pilotage. This will result in improved performance for these critical functions and reduced requirements for size, weight, and power for mission equipment across FVL platforms.					
Title: Early Human Systems Integration Demonstrations			2.049	1.900	1.621
Description: Human Systems Integration (HSI) analysis assesses and matures technologies to optimize pilot situational awareness and workload management, crew task automation and decision-aiding, information management, and advanced crew station interfaces. The objective of this effort is to reduce crew decision and task execution timelines in a tactically challenging mission environment.					
FY 2025 Plans: Will mature and demonstrate effects of intelligent agents and virtual crewmember to enhance aircrew decision-making, situational awareness, and dynamic information management; mature technologies for performance-based crew workload measurement and task automation, demonstrate impact of advanced technologies to enhance Soldier performance with embedded large data analytics, and mature advanced Soldier displays to include augmented reality interfaces; continue to demonstrate interface design extensions to support enhanced sense making and decision making in AMD C2 operations centers conducting multidomain operations; demonstrate and analyze concepts for supervised automation (control) in AMD C2 operations centers; mature the multi-level C2 performance assessment that considers the Soldier and system capabilities and limitations.					
FY 2026 Plans: Will optimize and demonstrate effects of intelligent agents and virtual crewmember to enhance aircrew decision-making, situational awareness, and dynamic information management; optimize technologies for performance-based crew workload and embedded AI applications including task automation. and embedded large data analytics; continue to demonstrate interface design extensions to support enhanced decision making in AMD C2 operations centers conducting multidomain operations; optimize and demonstrate concepts for supervised automation (control) in AMD C2 operations centers; and continue to mature the multi-level C2 performance assessment that considers the Soldier and system capabilities and limitations.					
FY 2025 to FY 2026 Increase/Decrease Statement:					

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army		Date: June 2025	
Appropriation/Budget Activity 2040 / 3		R-1 Program Element (Number/Name) PE 0603465A / Future Vertical Lift Advanced Technology	Project (Number/Name) AL9 / Holistic Sit Awareness and Decision Making Adv Tech
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2024	FY 2025
Funding decrease reflects the reduction of HSI human performance modeling and analyses for AMD C2.			
Title: Holistic Mission Manager (HMM) Demonstration Description: Investigate and demonstrate the capability of agent-based, software solutions to increase future and enduring Army vertical lift mission effectiveness by improving in-flight, aircrew mission management capabilities and processes in dynamic, time-constrained, tactical environments through information synthesis, automation, and autonomy. FY 2026 Plans: Will develop dynamic mission planning technologies for real-time, in-flight adaptation while providing updates to imported pre-mission data products; enhance machine agents for effective, onboard information synthesis and decision support for the aircrew, incorporating mission and aircraft performance data, to include handling and presentation of automatic route and flight profile options; exploit automation and supervised autonomy to improve communication protocols. FY 2025 to FY 2026 Increase/Decrease Statement: Funding increase reflects initiation of Holistic Mission Manager (HMM) Demonstration. Funding realigned from within this Project and from Program Element (PE) 0602183A (Air Platform Applied Research) / Projects DC2 (High Performance Computing for Rotorcraft Appl Tech), CU8 (Structures Tech for Enduring Efficient Resilience), PE 0603043A (Air Platform Advanced Technology) / Projects CV1 (Control & Autonomy for Tactical Superiority Adv) and CX1 (Advanced Rotors Advanced Tech)		-	-
			8.167
Accomplishments/Planned Programs Subtotals		20.476	10.858
C. Other Program Funding Summary (\$ in Millions) N/A			
Remarks			
D. Acquisition Strategy N/A			

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army										Date: June 2025		
Appropriation/Budget Activity 2040 / 3					R-1 Program Element (Number/Name) PE 0603465A / Future Vertical Lift Advanced Technology				Project (Number/Name) BP8 / Future Vertical Lift Air Platform Adv Tech (CA)			
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
BP8: Future Vertical Lift Air Platform Adv Tech (CA)	-	64.750	50.850	-	-	-	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note

Congressional Interest Item funding provided for Future Vertical Lift Air Platform Advanced Technology.

A. Mission Description and Budget Item Justification

Congressional Interest Item funding provided for Future Vertical Lift Air Platform Advanced Technology.

The cited work is consistent with the Under Secretary of Defense for Research and Engineering priority focus areas and the Army modernization strategy.

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2024	FY 2025
<i>Congressional Add:</i> Additive manufacturing for maintenance, repair, and overhaul operations	8.000	-
<i>FY 2024 Accomplishments:</i> Congressional Interest Item funding provided for Additive manufacturing for maintenance, repair, and overhaul operations		
<i>Congressional Add:</i> Advanced air mobility	5.000	-
<i>FY 2024 Accomplishments:</i> Congressional Interest Item funding provided for Advanced air mobility		
<i>Congressional Add:</i> Autonomous Configuration Management And Aviation Records	2.000	-
<i>FY 2024 Accomplishments:</i> Congressional Interest Item funding provided for Autonomous Configuration Management And Aviation Records		
<i>Congressional Add:</i> Composite structure research for aircraft	5.000	-
<i>FY 2024 Accomplishments:</i> Congressional Interest Item funding provided for Composite structure research for aircraft		
<i>Congressional Add:</i> Data Refinement And Optimization For Aviation Sustainment	4.500	-
<i>FY 2024 Accomplishments:</i> Congressional Interest Item funding provided for Data Refinement And Optimization For Aviation Sustainment		
<i>Congressional Add:</i> FLEETSPACE helicopter maintenance management tool	4.750	-

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army		Date: June 2025
Appropriation/Budget Activity 2040 / 3	R-1 Program Element (Number/Name) PE 0603465A / Future Vertical Lift Advanced Technology	Project (Number/Name) BP8 / Future Vertical Lift Air Platform Advanced Tech (CA)
B. Accomplishments/Planned Programs (\$ in Millions)		
	FY 2024	FY 2025
FY 2024 Accomplishments: Congressional Interest Item funding provided for FLEETSPACE helicopter maintenance management tool		
Congressional Add: High performance steels for improved drive system	3.000	-
FY 2024 Accomplishments: Congressional Interest Item funding provided for High performance steels for improved drive system		
Congressional Add: Multi mission capability for unmanned aircraft	1.000	-
FY 2024 Accomplishments: Congressional Interest Item funding provided for Multi mission capability for unmanned aircraft		
Congressional Add: Platform Digitization And Maintenance	5.500	4.850
FY 2024 Accomplishments: Congressional Interest Item funding provided for Platform Digitization And Maintenance		
FY 2025 Plans: Congressional Interest Item funding provided for Platform Digitization And Maintenance		
Congressional Add: Surface tolerant adhesives	6.000	-
FY 2024 Accomplishments: Congressional Interest Item funding provided for Surface tolerant adhesives		
Congressional Add: VTOL rotor blade efficiency enhancements	20.000	-
FY 2024 Accomplishments: Congressional Interest Item funding provided for VTOL rotor blade efficiency enhancements		
Congressional Add: advanced helicopter seating system	-	15.000
FY 2025 Plans: Congressional Interest Item funding provided for advanced helicopter seating system		
Congressional Add: ballistic tolerant self-sealing hose	-	10.000
FY 2025 Plans: Congressional Interest Item funding provided for ballistic tolerant self-sealing hose		
Congressional Add: composite oil reservoir	-	10.000
FY 2025 Plans: Congressional Interest Item funding provided for composite oil reservoir		
Congressional Add: composite material sustainment modernization	-	11.000
FY 2025 Plans: Congressional Interest Item funding provided for composite material sustainment modernization		
Congressional Adds Subtotals	64.750	50.850

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army		Date: June 2025
Appropriation/Budget Activity 2040 / 3	R-1 Program Element (Number/Name) PE 0603465A / Future Vertical Lift Advanced Technology	Project (Number/Name) BP8 / Future Vertical Lift Air Platform Advanced Tech (CA)
C. Other Program Funding Summary (\$ in Millions) N/A		
Remarks		
D. Acquisition Strategy N/A		

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army										Date: June 2025		
Appropriation/Budget Activity 2040 / 3					R-1 Program Element (Number/Name) PE 0603465A / Future Vertical Lift Advanced Technology				Project (Number/Name) CA8 / Adv Rotocraft Armaments Protection Sys			
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
CA8: Adv Rotocraft Armaments Protection Sys	-	6.225	4.764	0.201	-	0.201	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This Project investigates and demonstrates a holistic lethality solution for Future Vertical Lift (FVL) offensive and defensive applications, focused on but not limited to Future Long Range Assault Aircraft (FLRAA). Develop components for use in multi-role armament solutions for fire control, armament systems, munitions and integration of threat agnostic countermeasures.

Work in this Project complements Program Element (PE) 0602183A (Air Platform Applied Research) / Project DE2 (Airborne Threat Defeat).

The cited work is consistent with the Under Secretary of Defense for Research and Engineering Science and Technology focus areas and the Army modernization strategy.

Work in this Project is performed by the Armaments Center (AC).

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2024	FY 2025	FY 2026
Title: Advanced Rotorcraft Armanents Protection System-Future Long Range Assault Aircraft Description: This effort matures and demonstrates a holistic small caliber lethality solution for FVL offensive applications. Integrates and demonstrates components for use in multi-role armament solutions for fire control, software, and armament systems. FY 2025 Plans: Will validate improved aviation armament system performance from an optimized weapon mount integrated on an air platform. FY 2025 to FY 2026 Increase/Decrease Statement: Funding decrease reflects completion of this effort.	6.225	1.257	-
Title: Aviation CM Advanced Tech Description: This effort will mature and demonstrate countermeasure and lethality solutions necessary to protect current and future aviation platforms. The effort will focus on offensive and or defensive applications of armament systems for use in multi-role applications.	-	3.507	0.201

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army		Date: June 2025		
Appropriation/Budget Activity 2040 / 3	R-1 Program Element (Number/Name) PE 0603465A / <i>Future Vertical Lift Advanced Technology</i>	Project (Number/Name) CA8 / <i>Adv Rotocraft Armaments Protection Sys</i>		
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2024	FY 2025	FY 2026
<i>FY 2025 Plans:</i> Will improve area weapon armament system performance through modeling and sub-system level demonstration. Will mature use of holistic armament system and countermeasures for offensive and defensive fires.				
<i>FY 2026 Plans:</i> Will validate modeling and simulation and provide data analysis of radio frequency countermeasure.				
<i>FY 2025 to FY 2026 Increase/Decrease Statement:</i> Funding decrease is due to shifting S&T priorities and reflects efforts to foster innovation and accelerate deployment of promising technology.				
Accomplishments/Planned Programs Subtotals		6.225	4.764	0.201
C. Other Program Funding Summary (\$ in Millions) N/A				
Remarks				
D. Acquisition Strategy N/A				

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army										Date: June 2025		
Appropriation/Budget Activity 2040 / 3					R-1 Program Element (Number/Name) PE 0603465A / Future Vertical Lift Advanced Technology				Project (Number/Name) CC4 / FVL Radar Advanced Technologies			
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
CC4: FVL Radar Advanced Technologies	-	4.242	-	2.253	-	2.253	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		
A. Mission Description and Budget Item Justification												
<p>This Project matures and demonstrates next generation radar capabilities including next generation airborne radars apertures used for detection, tracking and precision targeting, navigation and fire control for multiple modalities. This project will demonstrate fully automated target recognition for radar, advanced processing techniques, distributed radar sensing and sensor coordination methods needed for targeting-quality detect, identify, locate and report (DILR) capabilities from airborne platforms. This project will further improve radar survivability and lethality across the Aviation ecosystem, speed target prosecution timelines for actionable information on the battlefield and will provide the Warfighter with persistent DILR enabling day/night/all-weather sensing in congested/contested Multi-Domain Operations (MDO) environments.</p> <p>Work in this Project is fully coordinated with Program Element (PE) 0602148A (Future Vertical Lift Technology) / Project CC3 (FVL Radar Technologies).</p> <p>The cited work is consistent with the Under Secretary of Defense for Research and Engineering priority focus areas and the Army Modernization Strategy.</p> <p>Work in this Project is performed by the Command, Control, Communication, Computers, Cyber, Intelligence, Surveillance and Reconnaissance (C5ISR) Center.</p>												
B. Accomplishments/Planned Programs (\$ in Millions)												
									FY 2024	FY 2025	FY 2026	
Title: Multi-mission Airborne Radar									4.242	-	-	
Description: Advanced Digital radio frequency (RF) processing integration with final demonstration subsystem and system level radar hardware and software designs.												
Title: Advanced RF Multi-Function ALE Payload									-	-	2.253	
Description: This effort matures advanced distributed radar techniques and small form-factor hardware with advanced radar modes for targeting. It integrates and demonstrates distributed radar modes onboard Size, Weight, and Power (SWaP) constrained airborne platforms. This effort significantly enhances radar survivability for operation in contested MDO and enables rapid, timely target prosecution from small autonomous airborne platforms for day/night/all-weather persistent surveillance.												
FY 2026 Plans:												

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army		Date: June 2025		
Appropriation/Budget Activity 2040 / 3	R-1 Program Element (Number/Name) PE 0603465A / Future Vertical Lift Advanced Technology	Project (Number/Name) CC4 / FVL Radar Advanced Technologies		
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2024	FY 2025	FY 2026
Will provide a testbed for distributed radar component hardware and software performance evaluation; validate performance of advanced modeling and simulation environment for distributed and mobile radar sensing concepts of operations.				
FY 2025 to FY 2026 Increase/Decrease Statement: Funding increase reflects planned initiation of this effort. Funds realigned from Program Element 0602148A (Future Vertical Lift Technology) / Project CC3 (FVL Radar Technologies).				
Accomplishments/Planned Programs Subtotals		4.242	-	2.253
C. Other Program Funding Summary (\$ in Millions) N/A				
Remarks				
D. Acquisition Strategy N/A				

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army										Date: June 2025		
Appropriation/Budget Activity 2040 / 3					R-1 Program Element (Number/Name) PE 0603465A / Future Vertical Lift Advanced Technology				Project (Number/Name) CG1 / Holistic Team Survivability Adv Tech			
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
CG1: Holistic Team Survivability Adv Tech	-	14.919	14.438	10.447	-	10.447	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This Project matures and demonstrates increased Future Vertical Lift (FVL) Family of Systems Survivability (FoS) in an advanced integrated air defense systems environment through a multi-layered approach. The approach focuses on maturing and demonstrating technologies for reducing aircraft susceptibility and vulnerability during pre-mission planning, mission execution (combat survivability and safety), and post-mission repair and return to service.

Work in this Project is fully coordinated with Program Element (PE) 0602148A (Future Vertical Lift Technology) / Project CH3 (Holistic Team Survivability Technology).

The cited work is consistent with the Under Secretary of Defense for Research and Engineering Science and Technology focus areas and the Army modernization strategy.

Work in this Project is performed by the Aviation & Missile Center (AvMC) and Command, Control, Communication, Computers, Cyber, Intelligence, Surveillance and Reconnaissance (C5ISR) Center.

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2024	FY 2025	FY 2026
Title: Advanced Radio Frequency Countermeasures	6.729	6.964	-
Description: This effort matures and demonstrates adaptive sensor and countermeasure technologies that provide platform protection against guided threats. It develops software and hardware to increase probability of detection and defeat of threats to aviation platforms using modeling and simulation (M&S), hardware in the loop (HIL) assessment, and field events. It provides integrated software and sensor technologies to counter the characteristics of advanced and agile threats.			
FY 2025 Plans: Will mature RF threat defeat techniques and technique description framework to enable portability of techniques; improve low SWAP-C payload and implement threat defeat techniques in payload hardware; validate projected performance of integrated payload with advanced algorithms and techniques; demonstrate team-based behaviors of multiple RF payloads with increased range, capability, and probability of threat defeat in laboratory.			
FY 2025 to FY 2026 Increase/Decrease Statement:			

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army		Date: June 2025		
Appropriation/Budget Activity 2040 / 3		R-1 Program Element (Number/Name) PE 0603465A / <i>Future Vertical Lift Advanced Technology</i>		Project (Number/Name) CG1 / <i>Holistic Team Survivability Adv Tech</i>
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2024	FY 2025	FY 2026
Funding decrease reflects realignment to Program Element (PE) 0603275A (Electronic Warfare Advanced Technology) / Project A78 (Sensor Electronic Support Adv Tech) as a part of the Department of Defense Capability Based (Agile) Funding pilot, which provides enhanced capabilities by fostering innovation and accelerated deployment of promising technology.				
Title: Holistic End to End Survivability Description: This task develops and matures technologies to increase own ship and aviation team survivability by managing aircraft signatures, reducing aircraft system vulnerabilities, increased threat and hazard situational awareness and optimized responses to the evolving threat. FY 2025 Plans: Will begin integration of microclimatology algorithms into the Survivability Correlator software in the loop (SIL) environment; perform SIL integration team-based survivability behaviors and begin component technologies demonstrations; begin integration of improved durability RF materials and Electro-Optical/ Infrared coatings onto demonstration platform(s); perform integration and flight test demonstration of unmanned arial systems survivability component technologies. FY 2026 Plans: Will integrate survivability planning algorithms and technologies into manned and unmanned test platforms; conduct flight demonstration of team-based survivability planning algorithms and behaviors to include multi-aircraft terrain flight optimization, multi-ship re-routes, and optimized counter measures; conduct flight demonstrations for abbreviated validation assessments of modeling and simulation tools. FY 2025 to FY 2026 Increase/Decrease Statement: Funding increase reflects demonstrations of Aircraft Survivability capabilities.		8.190	7.474	10.447
Accomplishments/Planned Programs Subtotals		14.919	14.438	10.447
C. Other Program Funding Summary (\$ in Millions) N/A				
Remarks				
D. Acquisition Strategy N/A				

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army	Date: June 2025
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Appropriation/Budget Activity 2040 / 3	R-1 Program Element (Number/Name) PE 0603465A / Future Vertical Lift Advanced Technology					Project (Number/Name) CH7 / Power & Thermal Management for FVL Adv Tech						
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
CH7: Power & Thermal Management for FVL Adv Tech	-	4.222	-	-	-	-	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This Project matures and demonstrates at the system level, integrated electrical power technologies (including power generation, distribution, and control along with advanced energy storage) and thermal management technologies to provide significantly higher electrical power capability to Future Vertical Lift (FVL) aircraft while addressing consequential size, weight, pulsed power, and thermal issues. Provides power capability for advanced electric aeromechanical effectors, advanced mission systems that for example, execute algorithms for route planning and teaming, and for advanced survivability and electronic warfare capability. Will demonstrate software-in-the-loop performance of power & thermal management technologies to provide significantly higher electrical power capability to FVL aircraft while addressing consequential SWAP-C & thermal issues.

Work in this Project is fully coordinated with Program Element (PE) 0602148A (Future Vertical Lift Technology) / Project CH4 (Power & Thermal Management for FVL Tech).

The cited work is consistent with the Under Secretary of Defense for Research and Engineering Science and Technology focus areas and the Army modernization strategy.

Work in this Project is performed by the Aviation & Missile Center (AvMC) and Command, Control, Communication, Computers, Cyber, Intelligence, Surveillance and Reconnaissance (C5ISR) Center.

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2024	FY 2025	FY 2026
Title: Optimized Energy for C5ISR Platforms Advanced Technology Description: Enable advanced Control, Communications, Computers, Cyber, Intelligence, Surveillance and Reconnaissance (C5ISR) and survivability systems on FVL platforms through component development of improved high power and energy storage technologies, higher capacity lower Size, Weight, and Power (SWaP) cooling systems, and more efficient electrical architectures	2.007	-	-
Title: Power & Thermal Management Tech Demo Description: Exploits fabrication, and systems integration lab validation testing to Technical Readiness Level (TRL) 6 of power and thermal management technologies to provide significantly higher electrical power capability to FVL aircraft while addressing thermal issues and reducing system weight/volume	2.215	-	-

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army		Date: June 2025		
Appropriation/Budget Activity 2040 / 3	R-1 Program Element (Number/Name) PE 0603465A / Future Vertical Lift Advanced Technology	Project (Number/Name) CH7 / Power & Thermal Management for FVL Adv Tech		
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2024	FY 2025	FY 2026
Accomplishments/Planned Programs Subtotals		4.222	-	-
C. Other Program Funding Summary (\$ in Millions) N/A				
Remarks				
D. Acquisition Strategy N/A				

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army										Date: June 2025		
Appropriation/Budget Activity 2040 / 3					R-1 Program Element (Number/Name) PE 0603465A / Future Vertical Lift Advanced Technology				Project (Number/Name) CI8 / Adaptive Avionics Advanced Technologies			
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
CI8: Adaptive Avionics Advanced Technologies	-	-	7.469	7.591	-	7.591	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This project will develop the ability for rapidly adaptable mission systems hardware and software that utilizes tactical situational awareness to optimize performance and will develop robust, secure and ruggedized computing elements, advanced architectures for efficient data storage and processing, algorithms for optimized computing resources and hardware qualification approaches. These resource technologies will be used in the development of solidier tailorable software applications, adaptable security controls and dynamic use of system of systems capabilities across the Combat Aviation Brigade (CAB).

Work in this Project is fully coordinated with Program Element (PE) 0602148A (Future Vertical Lift Technology) / Project CI4 (Adaptive Avionics Technologies).

The cited work is consistent with the Under Secretary of Defense for Research and Engineering Science and Technology focus areas and the Army modernization strategy.

Work in this Project is performed by the Aviation & Missile Center (AvMC).

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2024	FY 2025	FY 2026
Title: Reconfigurable Mission Systems (RMS)	-	7.469	7.591
Description: This effort will develop rapidly adaptable mission systems capabilities using affordable and sustainable approaches that will enable tactically reconfigurable and responsive software technologies. The objective for RMS is to dynamically create mission system capabilities to maintain constant overmatch against the enemy on the battlefield.			
FY 2025 Plans: Begin development of reconfigurable software capabilities by leveraging results from Future Avionics Implementation Research (FAIR) and specifying reconfigurable approaches, implementing recurring technology identified by stakeholders and exploring how they can be used in more efficient ways to promote reuse through reconfiguration; continue to explore RMS concepts including but not limited to Dynamic Software Architecture, or dynamic software updating; investigate approaches for scalability in time, space, and resources; investigate agility in computing processes; develop adaptive security methods and further investigate cybersecurity techniques with S3I Lab integration and testing.			
FY 2026 Plans:			

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army		Date: June 2025		
Appropriation/Budget Activity 2040 / 3		R-1 Program Element (Number/Name) PE 0603465A / <i>Future Vertical Lift Advanced Technology</i>		Project (Number/Name) C18 / <i>Adaptive Avionics Advanced Technologies</i>
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2024	FY 2025	FY 2026
<p>Will continue development of dynamic software capabilities and approaches; begin to exploit the processes and methodologies for continuously developing and deploying dynamic software.</p> <p><i>FY 2025 to FY 2026 Increase/Decrease Statement:</i> Funding increase reflects additional technology development, in addition to existing efforts on developing dynamic software. Exploitation of the processes and methodologies for continuously developing and deploying dynamic software will also be taking place concurrently resulting in increased labor and other costs.</p>				
Accomplishments/Planned Programs Subtotals		-	7.469	7.591
C. Other Program Funding Summary (\$ in Millions) N/A				
Remarks				
D. Acquisition Strategy N/A				

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army										Date: June 2025		
Appropriation/Budget Activity 2040 / 3					R-1 Program Element (Number/Name) PE 0603465A / Future Vertical Lift Advanced Technology				Project (Number/Name) CJ5 / Future Vertical Lift Medical Advanced Technology			
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
CJ5: Future Vertical Lift Medical Advanced Technology	-	1.314	1.595	1.354	-	1.354	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This Project evaluates, validates, matures and delivers medical guidelines and strategies to assure optimal Soldier performance and protection on the future technologically-intensive battlefield. Key elements of the program include: 1) tailored medical selection and retention standards for Future Vertical Lift (FVL); 2) medical strategies to maintain and enhance human performance in Multi-domain operations (MDO); 3) human-centered technology design guidance to accommodate the range of aircrew; 4) improved protection standards to reduce FVL occupant injury; and 5) operator state monitoring tools to enable scalable autonomy in FVL aircraft.

Efforts in this Project further develop work done in Program Element 0602148A (Future Vertical Lift Technology) / Project BZ7 (Future Vertical Lift Medical Technologies).

Work in this Project is performed by the United States Army Aeromedical Research Laboratory (USAARL).

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2024	FY 2025	FY 2026
Title: Biomedical Strategies to Support Design and Operation of Future Vertical Lift (FVL) Aircraft	1.314	1.595	1.354
Description: This effort evaluates, validates, matures and delivers medical guidelines and strategies to assure optimal Soldier performance and protection on the future technologically-intensive battlefield. Key elements of the program include: 1) tailored medical selection and retention standards for FVL; 2) medical strategies to maintain and enhance human performance in MDO.; 3) human-centered technology design guidance to accommodate the range of aircrew; 4) improved protection standards to reduce FVL occupant injury; and 5) operator state monitoring tools to enable scalable autonomy in FVL aircraft.			
FY 2025 Plans: Develop injury criteria for whole-body response to vertical and frontal acceleration. Validate human factor, efficacy and flight compatibility of US Army aviation life support equipment. Validate impacts of trust on aircrew workload and performance under stress. Validate spatial audio display design guidelines to enhance pilot radio communication capabilities for Future Vertical Lift. Assess/validate torso harness restraint system performance. Efforts in this task further develop work done in Program Element 0602148A, Project BZ7.			
FY 2026 Plans: Continue to develop and evaluate an Aircrew Spine Conditioning and Resiliency Program to reduce the incidence and magnitude of back and neck pain associated with rotary-wing aviation operational environments. Start research to determine the best metrics			

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army		Date: June 2025		
Appropriation/Budget Activity 2040 / 3	R-1 Program Element (Number/Name) PE 0603465A / Future Vertical Lift Advanced Technology	Project (Number/Name) CJ5 / Future Vertical Lift Medical Advanced Technology		
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2024	FY 2025	FY 2026
to assess deficits in performance resulting from prolonged head-supported mass (HSM) exposure while on the multi-axis ride simulator (MARS).				
FY 2025 to FY 2026 Increase/Decrease Statement: Funding decrease reflects cancellation of a planned study of realistic long-duration Army aviator exposures to head-supported mass.				
Accomplishments/Planned Programs Subtotals		1.314	1.595	1.354
C. Other Program Funding Summary (\$ in Millions) N/A				
Remarks				
D. Acquisition Strategy N/A				

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army										Date: June 2025		
Appropriation/Budget Activity 2040 / 3					R-1 Program Element (Number/Name) PE 0603465A / Future Vertical Lift Advanced Technology				Project (Number/Name) CK2 / High Speed Maneuverable Missile (HSMM) Adv Tech			
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
CK2: High Speed Maneuverable Missile (HSMM) Adv Tech	-	-	15.999	2.625	-	2.625	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The Project matures and demonstrates missile component technologies compatible with Future Vertical Lift (FVL) aviation platforms in a Multi-Domain Battle/Cross-domain Maneuver operational environment. Efforts mature technologies to support a smaller, faster, maneuverable missile capable of long-range non-line-of-sight attack in contested/degraded environments. Technology development increases aviation lethality and platform survivability by increasing missile standoff range, speed, and maneuverability, a faster rate of fire, shorter times of flight, and multi-threat lethal effects. Enables cross domain applications for aviation and ground vehicle platforms, including handoff capability, to engage threats in dead zones, and to operate in contested environments.

Work in this Project is fully coordinated with PE 0602148 (Future Vertical Lift Technology) / Project CI5 (High Speed Maneuverable Missile Tech).

The cited work is consistent with the Under Secretary of Defense for Research and Engineering Science and Technology focus areas and the Army modernization strategy.

Work in this Project is performed by the Aviation & Missile Center (AvMC).

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2024	FY 2025	FY 2026
Title: HSMM Tech Maturation and Demo	-	15.999	2.625
Description: Efforts provide technology maturation to support a maneuverable missile capable of both short-range direct attack and long-range non-line-of-sight attack with reduced time to target; reduced size and weight for increased load-out; capable of air and ground launched missions in degraded/contested environments.			
FY 2025 Plans: Will mature critical missile sensor components, demonstrate, and optimize sensor component data during system level demonstration to verify system performance in relevant environment to include degraded and contested environments; mature, demonstrate, and validate missile test bed capability with data collected from relevant environment; demonstrate the advanced propulsion system to verify increased range and speed with desired trajectory for effectiveness and survivability.			
FY 2026 Plans: Will perform missile test bed system evaluation runs to improve autonomous algorithm performance, maneuverability, lethality, and platform survivability in degraded/contested environments; perform detailed design and integration of the next generation /			

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army		Date: June 2025		
Appropriation/Budget Activity 2040 / 3	R-1 Program Element (Number/Name) PE 0603465A / Future Vertical Lift Advanced Technology	Project (Number/Name) CK2 / High Speed Maneuverable Missile (HSMM) Adv Tech		
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2024	FY 2025	FY 2026
high payoff multimode (solid rocket propulsion integrated with turbojet engine) propulsion system to potentially provide even greater range in same form factor.				
FY 2025 to FY 2026 Increase/Decrease Statement: Funding decrease reflects completion of capstone flight test in FY 2025.				
Accomplishments/Planned Programs Subtotals		-	15.999	2.625
C. Other Program Funding Summary (\$ in Millions) N/A				
Remarks				
D. Acquisition Strategy N/A				

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Army										Date: June 2025		
Appropriation/Budget Activity 2040: Research, Development, Test & Evaluation, Army I BA 3: Advanced Technology Development (ATD)					R-1 Program Element (Number/Name) PE 0603466A I Air and Missile Defense Advanced Technology							
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
Total Program Element	-	98.784	61.333	23.330	-	23.330	-	-	-	-	-	-
AE3: Unconventional Countermeasures-Survivability ATech	-	10.835	11.863	11.818	-	11.818	-	-	-	-	-	-
BN7: Weapons Components Adv Technology (CA)	-	78.500	33.000	-	-	-	-	-	-	-	-	-
CV6: Optimized High Energy Laser Source Adv Tech	-	6.497	4.188	5.025	-	5.025	-	-	-	-	-	-
DB3: Radar Survivability through Dis Sensing Adv Tech	-	2.952	6.724	1.977	-	1.977	-	-	-	-	-	-
IB1: Integrated Beam Control Systems Demo for C-CM	-	-	5.558	4.510	-	4.510	-	-	-	-	-	-
A. Mission Description and Budget Item Justification												
This Program Element (PE) matures demonstrates technology in support of Army Modernization Priority Air and Missile Defense by maturing, demonstrating and conducting system level experimentation for the development of advanced air defense technologies that reduce the cost curve of missile defense, restore overmatch, survive volley-fire attacks, and operate within sophisticated Anti-Access/Area Denial (A2/AD) and contested domains.												
Research in this PE complements PE 0602150A (Air and Missile Defense Technology).												
This PE is directly aligned to the Air & Missile Defense (AMD) Army Modernization Priority.												
The cited research is consistent with the Under Secretary of Defense for Research and Engineering priority focus areas and the Army Modernization Strategy.												
Research is performed by the United States (U.S.) Army Futures Command (AFC), the United States Army Space and Missile Defense Command/Army Forces Strategic Command (SMDC/ARSTRAT), and the Engineer Research and Development Center (ERDC), and the United States Army Rapid Capabilities and Critical Technologies Office (RCCTO).												
The FY 2026 request was reduced by \$0.154 million for Advisory and Assistance Services to promote efficiencies and advance the policies of the Administration in alignment with Executive Order 14222, "Implementing the President's Department of Government Efficiency Cost Efficiency Initiative."												

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Army				Date: June 2025		
Appropriation/Budget Activity 2040: Research, Development, Test & Evaluation, Army I BA 3: Advanced Technology Development (ATD)		R-1 Program Element (Number/Name) PE 0603466A I Air and Missile Defense Advanced Technology				
The FY 2026 request was reduced by \$0.096 million for civilian personnel to optimize the workforce in compliance with Executive Order 14210, "Implementing the President's Department of Government Efficiency Workforce Optimization Initiative."						
B. Program Change Summary (\$ in Millions)		FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total
Previous President's Budget		21.015	28.333	38.190	-	38.190
Current President's Budget		98.784	61.333	23.330	-	23.330
Total Adjustments		77.769	33.000	-14.860	-	-14.860
• Congressional General Reductions		-	-			
• Congressional Directed Reductions		-	-			
• Congressional Rescissions		-	-			
• Congressional Adds		78.500	33.000			
• Congressional Directed Transfers		-	-			
• Reprogrammings		-	-			
• SBIR/STTR Transfer		-0.731	-			
• Adjustments to Budget Years		-	-	-14.860	-	-14.860
Congressional Add Details (\$ in Millions, and Includes General Reductions)						
Project: BN7: Weapons Components Adv Technology (CA)						
Congressional Add: Threat detection for 5G-enabled drones						
Congressional Add: SHORAD integration and evaluation						
Congressional Add: Counter-UAS silent passive radar system						
Congressional Add: C-UAS for 5G-enabled drones						
Congressional Add: Physics-based hardware and software algorithms						
Congressional Add: Silicon carbide electronics						
Congressional Add: Distributed gain 300kW-class laser weapon system						
Congressional Add: Future interceptor						
Congressional Add: HEL power and thermal subsystem						
Congressional Add: Advanced multilayered mobile force protection						
Congressional Add: RAPID C-sUAS Missile						
Congressional Add Subtotals for Project: BN7						
Congressional Add Totals for all Projects						

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Army		Date: June 2025
Appropriation/Budget Activity 2040: Research, Development, Test & Evaluation, Army I BA 3: Advanced Technology Development (ATD)		R-1 Program Element (Number/Name) PE 0603466A I Air and Missile Defense Advanced Technology
<p><u>Change Summary Explanation</u></p> <p>Decrease is due to a reduction in algorithms and integrated sensors required for demonstrations, and planned completion of workflows for integrated beam control systems.</p>		

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army										Date: June 2025		
Appropriation/Budget Activity 2040 / 3					R-1 Program Element (Number/Name) PE 0603466A / Air and Missile Defense Advanced Technology				Project (Number/Name) AE3 / Unconventional Countermeasures-Survivability ATech			
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
AE3: Unconventional Countermeasures-Survivability ATech	-	10.835	11.863	11.818	-	11.818	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This Project matures and demonstrates technologies to increase survivability of personnel and critical assets using integrated unconventional countermeasures. These countermeasures include tone down concepts for signature management using novel materials, rapidly deployable, low-cost, multispectral survivability enhancement technologies as well as intuitive decision support technologies to select and assess non-kinetic protective measures.

Work in this Project complements Program Element (PE) 0602150A (Air and Missile Defense Technology) / Project AE2 (Unconventional Countermeasures-Survivability Tech).

The work cited is consistent with the Under Secretary of Defense for Research and Engineering priority focus areas and the Army Modernization Strategy.

Work in this Project is conducted by the United States Army Engineer Research and Development Center Geotechnical and Structures Laboratory.

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2024	FY 2025	FY 2026
Title: Advanced Integrated Unconventional Countermeasures Applications Demonstrations	1.164	1.839	1.904
Description: This effort demonstrates methods and materials to defeat peer advanced reconnaissance, surveillance, targeting methods through advancements in material science and computational prototyping to reduce targetable signatures and confuse targeting systems.			
FY 2025 Plans: Will mature and demonstrate physical prototype survivability enhancement kits for fire assets.			
FY 2026 Plans: Will optimize and validate physical prototype survivability enhancement kits for Fires assets. Will demonstrate preliminary field-expedient technical effects to support multi-domain operations.			
FY 2025 to FY 2026 Increase/Decrease Statement:			

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army		Date: June 2025		
Appropriation/Budget Activity 2040 / 3	R-1 Program Element (Number/Name) PE 0603466A / <i>Air and Missile Defense Advanced Technology</i>	Project (Number/Name) AE3 / <i>Unconventional Countermeasures-Survivability ATech</i>		
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2024	FY 2025	FY 2026
Funding increase reflects planned addition of workflows to validate physical prototype survivability enhancement kits and demonstrate preliminary field-expedient technical effects.				
Title: Assured Protection of Layered Logistics Operations (APoLLO)		9.671	10.024	9.914
Description: This effort matures and demonstrates unconventional countermeasures to protect joint logistical assets against emerging and dynamic threats to include expansion of core capabilities to other families of critical assets.				
FY 2025 Plans: Will refine and demonstrate passive unconventional countermeasures systems tailored for additional fixed logistics assets. Will optimize active countermeasures with specific focus on low-cost logistics protection of hard-to-move unique system and subsystems.				
FY 2026 Plans: Will demonstrate and validate active and passive countermeasure systems to protect fixed logistics assets.				
FY 2025 to FY 2026 Increase/Decrease Statement: Funding decrease reflects Army reduction.				
Accomplishments/Planned Programs Subtotals		10.835	11.863	11.818
C. Other Program Funding Summary (\$ in Millions) N/A				
Remarks N/A				
D. Acquisition Strategy N/A				

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army										Date: June 2025		
Appropriation/Budget Activity 2040 / 3					R-1 Program Element (Number/Name) PE 0603466A / Air and Missile Defense Advanced Technology				Project (Number/Name) BN7 / Weapons Components Advanced Technology (CA)			
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
BN7: Weapons Components Advanced Technology (CA)	-	78.500	33.000	-	-	-	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note
Congressional Interest Item funding provided for Weapons Components Advanced Technology.

A. Mission Description and Budget Item Justification
Congressional Interest Item funding provided for Weapons Components Advanced Technology.

The cited work is consistent with the Under Secretary of Defense for Research and Engineering priority focus areas and the Army modernization strategy.

B. Accomplishments/Planned Programs (\$ in Millions)	FY 2024	FY 2025
Congressional Add: Threat detection for 5G-enabled drones	2.500	-
FY 2024 Accomplishments: Congressional Interest Item funding provided for Threat detection for 5G-enabled drones		
Congressional Add: SHORAD integration and evaluation	2.500	-
FY 2024 Accomplishments: Congressional Interest Item funding provided for SHORAD integration and evaluation		
Congressional Add: Counter-UAS silent passive radar system	5.000	-
FY 2024 Accomplishments: Congressional Interest Item funding provided for Counter-UAS silent passive radar system		
Congressional Add: C-UAS for 5G-enabled drones	5.000	-
FY 2024 Accomplishments: Congressional Interest Item funding provided for C-UAS for 5G-enabled drones		
Congressional Add: Physics-based hardware and software algorithms	5.000	3.000

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army		Date: June 2025
Appropriation/Budget Activity 2040 / 3	R-1 Program Element (Number/Name) PE 0603466A / Air and Missile Defense Advanced Technology	Project (Number/Name) BN7 / Weapons Components Advanced Technology (CA)

B. Accomplishments/Planned Programs (\$ in Millions)	FY 2024	FY 2025
FY 2024 Accomplishments: Congressional Interest Item funding provided for Physics-based hardware and software algorithms		
FY 2025 Plans: Congressional Interest Item funding provided for Physics-based hardware and software algorithms		
Congressional Add: Silicon carbide electronics	8.500	-
FY 2024 Accomplishments: Congressional Interest Item funding provided for Silicon carbide electronics		
Congressional Add: Distributed gain 300kW-class laser weapon system	10.000	-
FY 2024 Accomplishments: Congressional Interest Item funding provided for Distributed gain 300kW-class laser weapon system		
Congressional Add: Future interceptor	10.000	-
FY 2024 Accomplishments: Congressional Interest Item funding provided for Future interceptor		
Congressional Add: HEL power and thermal subsystem	10.000	-
FY 2024 Accomplishments: Congressional Interest Item funding provided for HEL power and thermal subsystem		
Congressional Add: Advanced multilayered mobile force protection	20.000	20.000
FY 2024 Accomplishments: Congressional Interest Item funding provided for Advanced multilayered mobile force protection		
FY 2025 Plans: Congressional Interest Item funding provided for Advanced multilayered mobile force protection		
Congressional Add: RAPID C-sUAS Missile	-	10.000
FY 2025 Plans: Congressional Interest Item funding provided for RAPID C-sUAS Missile		
Congressional Adds Subtotals	78.500	33.000

C. Other Program Funding Summary (\$ in Millions) N/A
Remarks
D. Acquisition Strategy N/A

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army										Date: June 2025		
Appropriation/Budget Activity 2040 / 3					R-1 Program Element (Number/Name) PE 0603466A / Air and Missile Defense Advanced Technology				Project (Number/Name) CV6 / Optimized High Energy Laser Source Adv Tech			
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
CV6: Optimized High Energy Laser Source Adv Tech	-	6.497	4.188	5.025	-	5.025	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This Project matures and demonstrates Optimized High Energy Laser Source advanced technology establishing a more affordable laser source for application in High Energy Laser weapon systems. This Project will deliver a lower cost laser weapon source to next generation HEL systems.

Research in this Project complements other Army Directed Energy efforts conducted under (PE) 0602150A (Air and Missile Defense Technology)/Projects DC1 (Next Generation Directed Energy Concept Development and Analysis) and CV7 (High Energy Laser Direct Diode Applied Technology).

The cited research is consistent with the Army's modernization programs, the Under Secretary of Defense for Research and Engineering priority focus areas, the Army Modernization Strategy, and supports the Army's future capability opportunities for leap-ahead technology for Directed Energy.

Research is performed by the United States Army Space and Missile Defense Command - Technical Center (USASMDC-TC) in coordination with RCCTO and PEO Missiles and Space/PM Shield.

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2024	FY 2025	FY 2026
Title: Optimized High Energy Laser Source Advanced Technology	6.497	4.188	5.025
Description: This effort matures and demonstrates Optimized High Energy Laser Source Advanced Technology to demonstrate a more affordable laser source for application in High Energy Laser weapon systems. This effort will provide a lower cost, ruggedized laser source that meets the current Laser Weapon Module dimensions of a Counter-UAS Systems. Delivering an affordable 30 kW-class laser subsystem with 50% efficiency and 80% fractional Power in the Bucket enabling improvements in efficiency and Size, Weight, and Power laser source resulting in a smaller footprint while reducing logistics requirements.			
FY 2025 Plans: This effort will continue improvement and integration of the 50 kW-class semiconductor high energy laser subsystem module with a focus on validating performance of components and subsystems as they are integrated. As a risk reduction this effort will integrate a 30 kW-class ruggedized laser module into a prototype High Energy Laser System for testing and experimentation.			
FY 2026 Plans: This effort will continue the development and integration of remaining direct diode laser modules into a 30-kW class laser meeting the dimensions of a Counter-UAS Systems. This effort will demonstrate a 30-kW class laser prior to acceptance of hardware.			

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army		Date: June 2025		
Appropriation/Budget Activity 2040 / 3	R-1 Program Element (Number/Name) PE 0603466A / Air and Missile Defense Advanced Technology	Project (Number/Name) CV6 / Optimized High Energy Laser Source Adv Tech		
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2024	FY 2025	FY 2026
Anticipated successful completion of the demonstration will serve as a decision point to pursue future improvements to Size, Weight and Power or pursue direct diode replacements for other US Army Directed Energy prototype efforts.				
FY 2025 to FY 2026 Increase/Decrease Statement: Funding increase reflects a planned shift in the focus of work, shifting from procurement to integration and demonstration of a laser module risk reduction effort.				
Accomplishments/Planned Programs Subtotals		6.497	4.188	5.025
C. Other Program Funding Summary (\$ in Millions) N/A				
Remarks				
D. Acquisition Strategy N/A				

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army										Date: June 2025		
Appropriation/Budget Activity 2040 / 3					R-1 Program Element (Number/Name) PE 0603466A / Air and Missile Defense Advanced Technology				Project (Number/Name) DB3 / Radar Survivability through Dis Sensing Adv Tech			
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
DB3: Radar Survivability through Dis Sensing Adv Tech	-	2.952	6.724	1.977	-	1.977	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This Project matures and demonstrates distributed and collaborative engagement decision making for Multi-Domain Operations. The Augmented Intelligence for Mission Planning and Control effort will develop and mature Artificial Intelligence (AI) Decision Aids enabling operators to continuously manage IAMD component deployments and to select best engagement options in support of Multi-Domain Operations (MDO).

Work in this Project complements Program Element (PE) 0602141A (Lethality Technology) / Project CG4 (Advanced Radar Concepts and Technologies) and Project CJ7 (Future Air Defense Missile Enabling Tech; PE 0602148A (Future Vertical Lift Technology) / Project CC3 (FVL Radar Technologies); PE 0601102A (Defense Research Sciences) / Project AA8 (Sensing and Electromagnetics) and PE 0602150A (Air and Missile Defense Technology) / Project DA9 (Radar Survivability through Dis Sensing Tech); and PE 0602275A (Electronic Warfare Applied Research)/ Project A70 (Sensor Electronic Support Tech); and PE 0603275A (Electronic Warfare Advanced Technology) / Project A78 (Sensor Electronic Support Adv Tech)

The cited work is consistent with the Under Secretary of Defense for Research and Engineering priority focus areas and the Army modernization strategy.

Work in this Project is performed by the Aviation & Missile Center (AvMC).

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2024	FY 2025	FY 2026
Title: Radar Survivability through Dis Sensing (RSDS) Adv Tech	2.952	3.701	-
Description: Matures and demonstrates critical radar capability enhancements to defeat advanced Air and Missile threats and protect Army maneuver forces and critical assets.			
FY 2025 Plans: Will conduct an initial modeling and simulation demonstration that will assess technologies developed under the communication among sensors (CAS) task to pass detection information between sensors; mature software technology for future multi-static demonstrations. Incorporate user feedback to ensure developed technology is interoperable with Air Defense radars through software built to avoid costly hardware modifications.			
FY 2025 to FY 2026 Increase/Decrease Statement:			

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army			Date: June 2025		
Appropriation/Budget Activity 2040 / 3		R-1 Program Element (Number/Name) PE 0603466A / <i>Air and Missile Defense Advanced Technology</i>	Project (Number/Name) DB3 / <i>Radar Survivability through Dis Sensing Adv Tech</i>		
B. Accomplishments/Planned Programs (\$ in Millions)			FY 2024	FY 2025	FY 2026
Funding increase reflects realignment from Program Element (PE) 0603275A (Electronic Warfare Advanced Technology) / Project A78 (Radar Survivability through Dis Sensing Adv Tech) as a part of the Department of Defense Capability Based (Agile) Funding pilot, which provides enhanced capabilities by fostering innovation and accelerated deployment of promising technology.					
Title: Augmented Intelligence for Mission Planning and Control			-	3.023	1.977
Description: Provides mission effectiveness capabilities for MDO distributed & collaborative engagement decision making through maturation of Artificial Intelligence (AI) decision aids that enable operators to continuously manage IAMD component deployments and select best engagement options and pairings. Performs test bed demonstrations of collaborative AI processes enabling a mix of fixed and mobile AMD weapons to defeat full MDO threat spectrum.					
FY 2025 Plans: Will develop and evaluate various decision aids for introduction into future Air Defense Command and Control (C2) systems to reduce cognitive overload; decision aids will be evaluated in a virtual battlespace to determine their viability for the users; refine decision aids and create a process that can be incorporated into future Air Defense C2 Systems, thus building a foundation for how the Army implements Artificial Intelligence/Machine Learning (AI/ML) for AMD mission planning and optimization of weapon system pairing.					
FY 2026 Plans: Will continue maturation and evaluation of decision aids mature development of mission testbed proof of concept (POC) prototype for future demonstrations; mature development of a POC planning software and modeling and simulation including AI/ML enabled algorithms for multiple sensors and effectors on the battlefield.					
FY 2025 to FY 2026 Increase/Decrease Statement: Funding decrease reflects reduction in algorithms and sensors integrated in the POC prototype testbed. Funding realigned to Program Element (PE) 0603275A (Electronic Warfare Advanced Technology) / Project A78 (Radar Survivability through Dis Sensing Adv Tech) as a part of the Department of Defense Capability Based (Agile) Funding pilot, which provides enhanced capabilities by fostering innovation and accelerated deployment of promising technology.					
Accomplishments/Planned Programs Subtotals			2.952	6.724	1.977
C. Other Program Funding Summary (\$ in Millions) N/A					
Remarks					
D. Acquisition Strategy N/A					

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army										Date: June 2025		
Appropriation/Budget Activity 2040 / 3					R-1 Program Element (Number/Name) PE 0603466A / Air and Missile Defense Advanced Technology				Project (Number/Name) IB1 / Integrated Beam Control Systems Demo for C-CM			
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
IB1: Integrated Beam Control Systems Demo for C-CM	-	-	5.558	4.510	-	4.510	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This program will mature and demonstrate advanced beam control technologies to extend the effective range of a High Energy Laser weapon system. Integrate a large-aperture, off-axis telescope into a government testbed with advanced adaptive optics and tracking. Validate and optimize adaptive optics and laser-quality tracking algorithms to demonstrate increased range capabilities for multi-domain missions, including counter-cruise missile operations..

Research in this Project complements other Army Directed Energy efforts conducted under (PE) 0602150A (Air and Missile Defense Technology)/Projects DC1 (Next Generation Directed Energy Concept Development and Analysis) and DE3 (Advanced Beam Control Component Development for Counter-Cruise Missile).

The cited research is consistent with the Army's modernization programs, the Under Secretary of Defense for Research and Engineering priority focus areas, the Army Modernization Strategy, and supports the Army's future capability opportunities for leap-ahead technology for Directed Energy.

Research is performed by the United States Army Space and Missile Defense Command - Technical Center (USASMDC-TC) in coordination with RCCTO.

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2024	FY 2025	FY 2026
Title: Integrated Beam Control Systems Demo for C-CM	-	5.558	4.510
Description: Supports Advanced Beam Control demonstrations.			
Demonstrates New Technologies for Beam Control Systems.			
Support the Space and Missile Defense Commands efforts in developing Counter Cruise Missile Components/Subsystems.			
FY 2025 Plans: Initiate integration of a beam expander, advanced adaptive optics, and advanced laser quality track subsystems with a high energy laser testbed. Initiate field validation strategy to iteratively optimize advanced algorithms. Begin progress towards demonstrating extended effective range of a high energy laser weapon system and transitioning Technology Readiness Level (TRL) 6 technologies to a program of record for a block upgrade to current system architectures.			
FY 2026 Plans:			

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army		Date: June 2025		
Appropriation/Budget Activity 2040 / 3	R-1 Program Element (Number/Name) PE 0603466A / <i>Air and Missile Defense Advanced Technology</i>	Project (Number/Name) IB1 / <i>Integrated Beam Control Systems Demo for C-CM</i>		
B. Accomplishments/Planned Programs (\$ in Millions) This effort will continue the development of integrated beam expanders, advanced adaptive optics, and advanced laser quality track subsystems and technologies, ensuring tactical readiness in a high energy laser beam control system. This effort will begin developing a demonstration strategy for subsystems to enhance and validate performance metrics. It will optimize the subsystem level designs to deliver a mission relevant design specification. <i>FY 2025 to FY 2026 Increase/Decrease Statement:</i> Funding decrease reflects a planned completion of workflows of advanced research and the transition of technology to integration and demonstration, and economic assumptions.		FY 2024	FY 2025	FY 2026
Accomplishments/Planned Programs Subtotals		-	5.558	4.510
C. Other Program Funding Summary (\$ in Millions) N/A Remarks D. Acquisition Strategy N/A				

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Army **Date:** June 2025

Appropriation/Budget Activity 2040: <i>Research, Development, Test & Evaluation, Army I BA 3: Advanced Technology Development (ATD)</i>	R-1 Program Element (Number/Name) PE 0603920A / <i>Humanitarian Demining</i>
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COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
Total Program Element	-	22.737	23.272	9.349	-	9.349	-	-	-	-	-	-
CD5: <i>Humanitarian Demining</i>	-	22.737	23.272	9.349	-	9.349	-	-	-	-	-	-

A. Mission Description and Budget Item Justification

This Program Element (PE) develops, demonstrates and validates cost-effective technologies for use in humanitarian demining via Outside Continental United States (OCONUS) operational field evaluations. This PE's low-cost and highly effective technology reduces the landmine and unexploded ordnance (UXO) / improvised explosive devise (IED) threat to deployed United States (US) forces and the local population. This PE coordinates with the Department of State's Weapons Removal and Abatement Program, the Department of Defense (DoD) Humanitarian Mine Action (HMA) programs of the Combatant Commands (CCMDs), and international mine action organizations and foreign militaries. New technology requirements and areas of emphasis are identified and validated at annual Requirements Workshop and UXO/IED Working Group Meetings. Technology investments are prioritized using the results of these meetings and CCMD security cooperation and theater campaign plan HMA objectives. This PE advances the state-of-the-art of demining technologies and evaluates these technologies utilizing host nation humanitarian demining partners.

This PE supports and bolsters the CCMD stability operations mission as directed under Department of Defense Instruction (DODI) 3000.05 to foster mil-to-mil engagement, and bolster economic security and development with partner nations worldwide. Additionally, this PE fosters nations' mine action capacity while improving DoD's visibility and access, generating long-term positive perceptions of DoD and the US, and fostering collaborative relationships with host nation governments. It also directly supports the National Defense Strategy through ensuring common domains remain open and free.

This PE utilizes a research and development plan based on operational test data gained through Operational Field Evaluations (OFEs). These OFEs provide this PE a unique capability to collect this data against live mines/UXO in actual minefields around the world. This data is unavailable to any other DoD organization. This OFE data drives future humanitarian demining investment decisions and is shared and leveraged by the U.S. Army's Army Futures Command programs to further improve U.S. forces' technologies. In addition, this PE provides mine and UXO detector training to the CCMDs at the Humanitarian Demining Training Center (HDTC) in support of Military to Military training and partnerships.

This PE supports the DoD's strategic guidance to address instability and reduce the demand for significant US force commitments to stability operations; with DODI 3000.05 (Stability Operations) and Chairman of the Joint Chiefs of Staff Instruction (CJCSI) 3207.01C (Department of Defense Support to Humanitarian Mine Action) to reduce the social, economic and environmental impact of landmines and unexploded ordnance.

This PE will be executed by the Army Futures Command (AFC).

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Army				Date: June 2025	
Appropriation/Budget Activity		R-1 Program Element (Number/Name)			
2040: Research, Development, Test & Evaluation, Army I BA 3: Advanced Technology Development (ATD)		PE 0603920A I Humanitarian Demining			
B. Program Change Summary (\$ in Millions)	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total
Previous President's Budget	9.068	9.272	9.375	-	9.375
Current President's Budget	22.737	23.272	9.349	-	9.349
Total Adjustments	13.669	14.000	-0.026	-	-0.026
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	14.000	14.000			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-0.331	-			
• Adjustments to Budget Years	-	-	-0.026	-	-0.026
Congressional Add Details (\$ in Millions, and Includes General Reductions)				FY 2024	FY 2025
Project: CD5: Humanitarian Demining					
Congressional Add: Congressional Interest Item - Program Increase				14.000	14.000
Congressional Add Subtotals for Project: CD5				14.000	14.000
Congressional Add Totals for all Projects				14.000	14.000
Change Summary Explanation					
Funding decrease in FY26 from the previous PB is due to a Congressional Add in FY25.					

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army										Date: June 2025		
Appropriation/Budget Activity 2040 / 3					R-1 Program Element (Number/Name) PE 0603920A / Humanitarian Demining				Project (Number/Name) CD5 / Humanitarian Demining			
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
CD5: Humanitarian Demining	-	22.737	23.272	9.349	-	9.349	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This project develops, demonstrates and validates cost-effective technologies for use in humanitarian demining via Outside Continental United States (OCONUS) operational field evaluations. This project's low-cost and highly effective technology reduces the landmine and unexploded ordnance (UXO) / improvised explosive device (IED) threat to deployed United States (US) forces and the local population. This project coordinates with the Department of State's Weapons Removal and Abatement Program, the Department of Defense (DoD) Humanitarian Mine Action (HMA) programs of the Geographic Combatant Commands (GCCs), international mine action organizations, and foreign militaries. New technology requirements and areas of emphasis are identified and validated at annual Requirements Workshops and UXO/IED Working Group Meetings. Technology investments are prioritized using the results of these meetings and GCC security cooperation and theater campaign plan HMA objectives. This Project advances the state-of-the-art of demining technologies and evaluates these technologies utilizing host nation humanitarian demining partners.

This project supports and bolsters the GCC stability operations mission as directed under Department of Defense Instruction (DODI) 3000.05 to foster mil-to-mil engagement and bolster economic security and development with partner nations worldwide. Additionally, this project fosters nations' mine action capacity while improving DoD's visibility and access, generating long-term positive perceptions of DoD and the US, and fostering collaborative relationships with host nation governments.

This project utilizes a development plan based on operational data gained through Operational Field Evaluations (OFEs). These OFEs provide this project a unique capability to collect data against live mines/UXO in actual minefields around the world. This data is not available to any other DoD organization. This OFE data drives future humanitarian demining investment decisions and is shared and leveraged by the Army Futures Command to further improve U.S. forces' technologies. In addition, this project provides mine and UXO detector training to the GCCs at the Humanitarian Demining Training Center (HDTC) in support of Military-to-Military training and partnerships.

This Project supports the DoD's strategic guidance to address instability and reduce the demand for significant US force commitments to stability operations. This is in accordance with US Title 10 Section 407 (Humanitarian Demining Assistance), DOD Instruction 3000.05 (Stability Operations), and Chairman of the Joint Chiefs of Staff Instruction (CJCSI) 3207.01C (Department of Defense Support to Humanitarian Mine Action) to reduce the social, economic, and environmental impact of landmines and unexploded ordnance.

This Project will be executed by the Army Futures Command (AFC).

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2024	FY 2025	FY 2026
Title: Humanitarian Demining Technologies	8.737	9.272	9.349

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army		Date: June 2025	
Appropriation/Budget Activity 2040 / 3	R-1 Program Element (Number/Name) PE 0603920A / Humanitarian Demining	Project (Number/Name) CD5 / Humanitarian Demining	
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2024	FY 2025
<p>Description: This effort adapts commercial-off-the-shelf equipment, integrates mature technologies, and leverages research and development activity within the Army, particularly the AFC DEVCOM Command, Control, Communications, Computers, Combat Systems, Intelligence, Surveillance, and Reconnaissance (C5ISR) Tactical Countermining mission area. This effort supports the DoD HMA programs of the CCMDs and aims to improve existing technologies for mine/UXO detection, technical survey/area reduction, mechanical mine/UXO clearance, vegetation clearance, and mechanical mine neutralization.</p> <p>FY 2025 Plans: Will develop mine/UXO detection sensors with positioning technologies, and automated field data capture, analysis, discrimination, and classification to find mines and UXO at greater depths. Will mature robotic and global positioning system control technologies and validate mechanical technologies for remote operations. Will provide technology to address GCC HMA requirements in critical areas (i.e., Eastern Europe and the Indo-Pacific region). Will continue ongoing operational field evaluations from FY2024 and deploy several new technologies during FY2025.</p> <p>FY 2026 Plans: Will mature mine/UXO detection sensors with positioning technologies and demonstrate automated detection and classification of mines and UXO buried at greater depths. Optimize robotic and global positioning system control technologies and improve performance of mechanical technologies for remote operations. Identify emerging technology gaps and emerging threats with demining partners, and mature component technologies. Continue operational field evaluations from FY2025 while maturing and demonstrating new mine and unexploded ordnance detection and clearance technologies in FY2026.</p> <p>FY 2025 to FY 2026 Increase/Decrease Statement: Increase in FY 2026 funding from the previous PB to the current PB due to revised economic assumptions.</p>			
Accomplishments/Planned Programs Subtotals		8.737	9.272
		FY 2024	FY 2025
Congressional Add: Congressional Interest Item - Program Increase		14.000	14.000
FY 2024 Accomplishments: Congressional Interest Item			
FY 2025 Plans: Congressional Interest Item			
Congressional Adds Subtotals		14.000	14.000
C. Other Program Funding Summary (\$ in Millions)			
N/A			
Remarks			

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Army		Date: June 2025
Appropriation/Budget Activity 2040 / 3	R-1 Program Element (Number/Name) PE 0603920A / Humanitarian Demining	Project (Number/Name) CD5 / Humanitarian Demining
D. Acquisition Strategy N/A		