Department of Defense Fiscal Year (FY) 2024 Budget Estimates

March 2023



Army

Justification Book Volume 4c of 4

Research, Development, Test & Evaluation, Army
RDT&E - Volume III, Budget Activity 8

UNCLASSIFIED

Army • Budget Estimates FY 2024 • RDT&E Program

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UNCLASSIFIED 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, \$15,772,215,000.00 to remain available for obligation until September 30, 2025.

The FY 2024 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 \$3,166,000.00.

COST STATEMENT

The following Justification Books were prepared at a cost of \$365,839.52: Aircraft (ACFT), Missiles (MSLS), Weapons & Tracked Combat Vehicles (WTCV), Ammunition (AMMO), Other Procurement Army (OPA) 1 – Tactical & Support Vehicles, Other Procurement Army (OPA) 2 – Communications & Electronics, Other Procurement Army (OPA) 3 & 4 - Other Support Equipment & Spares, Research, Development, Test and Evaluation (RDTE) for: Budget Activity 1, Budget Activity 2, Budget Activity 3, Budget Activity 4, Budget Activity 5A, Budget Activity 5B, Budget Activity 5D, Budget Activity 6, Budget Activity 7, and Budget Activity 8.

UNCLASSIFIED FY 2024 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 2024.
- 2. Relationship of the FY 2024 Budget Submitted to Congress to the FY 2023 Budget Submitted to Congress. This paragraph provides a list of program elements/projects that are major new starts, restructures, developmental transitions, and terminated programs. Explanations for these changes can be found in the narrative sections of the Program Element R-2A Exhibits.

New Start Programs:

Budget Activity	OSDPE / Project	Project Title
02	0602146A / AM6	Modular RF Communications Technology
02	0602148A / CI4	Adaptive Avionics Technologies
02	0602141A / CIC	Fire Control Lethality Technology
02	0602182A / DA8	Quantum PNT & Radio Frequency Sensing
02	0602182A / DB4	Enabling Long Standoff 3D (ELS3D) Tech
02	0602002A / DC6	Sci & Analysis for Autonomous Sys & Counter-Auton
02	0602183A / DE2	Airborne Threat Defeat
02	0602150A / DE3	Adv Beam Control Component Development for C-CM
02	0602182A / DE6	Understanding Environment as a Threat Tech
03	0603044A / CW1	Technical-SAVVY Soldier Advanced Research
03	0603116A / DB2	Future Armaments Scalable Technologies
03	0603042A / DB5	Enabling Long Standoff 3D (ELS3D) Adv Tech
03	0603463A / DB6	Pathfinder 3D Advanced Technology
04	0604103A / DG4	NAVWAR SA
04	0603779A / DH6	Installation Resilience
05	0604802A / DC9	30mm MMPA M-SHORAD INC 3

05	0604818A / DD1	Unified Network Technology Trans & Integ (UNTTI)
05	0605206A / DG3	CI and HUMINT Equipment Program-Army (CIHEP-A)
05	0605013A / DH1	Operational Medicine Information System
05	0605216A / EFA	Joint Target Integrated Cmd & Coordination Suite
05	0605036A / EQ5	Combating Weapons of Mass Destruction (CWMD)
05	0605049A / XT4	Advanced Threat Detection System (ATDS)
06	0605601A / WD1	West Desert Test Center
07	0203735A / DD4	AMPV Improvement Program
07	0607315A / DD5	Army Power Systems Modernization

Program Element/Project Restructures:

Budget		
<u>Activity</u>	Old OSDPE / Project: Title	New OSDPE / Project
02	0602145A / CU5: Next Generation Combat Vehicle Technolog	0602141A / CIA
02	0602181A / CM7: All Domain Convergence Applied Research	0602141A / CIB
02	0602143A / AZ9: Soldier Lethality Technology	0602143A / BB4
02	0602143A / BBG: Soldier Lethality Technology	0602143A / BC2
02	0602145A / BG8: Next Generation Combat Vehicle Technology	0602144A / DG1
02	0602180A / CL7: Artificial Intelligence and Machine Learning Technologies	0602180A / DE8
03	0603040A / CL6: Artificial Intelligence and Machine Learning Technologies	0603040A / DE9
03	0603463A / AR6: Network C3I Advanced Technology	0603042A / DE7
03	0603041A / CM8: All Domain Convergence Advanced Technology	0603116A / CID
03	0603462A / BH6: Next Generation Combat Vehicle Advanced Technology	0603118A / BD9
03	0603462A / BG9: Next Generation Combat Vehicle Advanced Technology	0603119A / DG2
03	0603464A / CZ8: Long Range Precision Fires Advanced Technology	0603464A / AF2
04	0604036A / BY9: Multi-Domain Sensing System (MDSS) Adv Dev	0604036A / DD6
04	0604036A / BY9: Multi-Domain Sensing System (MDSS) Adv Dev	0604036A / DD6

05	0604818A / EJ5: Family of Heavy Vehicles	0604622A / DG7
05	0605224A / CK4: Long-Range Hypersonic Weapon	0604182A / HX2
05	0605224A / CK4: All Up Round and Canister (AUR+C)	0604182A / HX2
05	0605457A / S40: Common Hypersonic Glide Body (CHGB)	0604182A / HX2
05	0605601A / F30: Ground Support Equipment (GSE)	0604182A / HX2
05	0203744A / EB6: HX6: Test and Evaluation	0604182A / HX2
05	0605224A / CK4: Multi-Domain Intelligence	0604805A / 593
05	0605224A / CK4: Multi-Domain Intelligence	0605224A / DD8
05	0605457A / S40: Multi-Domain Intelligence	0605224A / DD9
05	0605601A / F30: Army Integrated Air and Missile Defense (AIAMD)	0605457A / SS1
06	0605601A / F30: Army Integrated Air and Missile Defense (AIAMD)	0605702A / 128
07	0203744A / EB6: Army Test Ranges and Facilities	0305219A / MQ2

Program Terminations (including transfers to Procurement and Sustainment):

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Budget	OSDPE / Project	Project Title
Activity		
03	0603465A / AI8	Future Vertical Lift Advanced Technology / Alternative Concept Engine Advanced Technology
03	0603463A / AV4	Network C3I Advanced Technology / Foundational S&T for Network C3I Advanced Tech
04	0305251A / DD3	Cyberspace Operations Forces and Force Support / Joint Cyber Warfighting Architecture Cyber Train
04	0604115A / AX8	Technology Maturation Initiatives / Adv Leth and Accuracy Sys for Med Calber (ALAS-MC)
04	0604115A / AX9	Technology Maturation Initiatives / Adv Mobility Experimental Prototype Adv Tech
05	0604802A / CE3	Weapons and Munitions - Eng Dev / Precision Munition (Sniper)
05	0604802A / EU4	Weapons and Munitions - Eng Dev / 40mm HV Improved High Explosive Dual Purpose
05	0604804A / FG4	Logistics and Engineer Equipment - Eng Dev / Ultra-Lightweight Camouflage Net System (ULCANS)
05	0604822A / DV6	General Fund Enterprise Business System (GFEBS) / General Fund Enterprise Business System
05	0604854A / HB6	Artillery Systems - EMD / Mobile 155MM Howitzer
05	0605013A / 184	Information Technology Development / Installation Support Modules
07	0305204A / 11A	Tactical Unmanned Aerial Vehicles / Advanced Payload Develop & Spt

07	0305206A / EH2	Airborne Reconnaissance Systems / EMARSS ADV DEV
07	0305206A / EH3	Airborne Reconnaissance Systems / EMARSS Payloads ADV DEV
08	0608041A / DD2	Defensive CYBER - Software Prototype Development / Joint Cyber Warfighting Architecture Software

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.

Department of Defense FY 2024 President's Budget Exhibit R-1 FY 2024 President's Budget Total Obligational Authority (Dollars in Thousands)

Appropriation	FY 2022 Actuals	FY 2023 Less Supplementals Enactment	FY 2023 Supplementals Enactment*	FY 2023 Total Enactment	FY 2024 Request
Research, Development, Test and Evaluation, Army	14,660,654	17,142,121	9,100	17,151,221	15,775,381
Total Research, Development, Test, & Evaluation	14,660,654	17,142,121	9,100	17,151,221	15,775,381

^{*}Includes enacted funding in the Ukraine Supplemental Appropriation Act, 2023 (Division B of Public Law 117-180) and Additional Ukraine Supplemental Appropriation Act, 2023 (Division M of Public Law 117-328).

Department of Defense FY 2024 President's Budget Exhibit R-1 FY 2024 President's Budget Total Obligational Authority (Dollars in Thousands)

·	FY 2022 Actuals	FY 2023 Less Supplementals Enactment	FY 2023 Supplementals Enactment [*]	FY 2023 Total Enactment	FY 2024 Request
Summary Recap of Budget Activities					
Basic Research	590,078	635,395		635,395	497,455
Applied Research	1,521,472	1,823,330		1,823,330	948,358
Advanced Technology Development	2,145,309	2,532,690		2,532,690	1,455,986
Advanced Component Development & Prototypes	3,799,417	4,631,111	6,000	4,637,111	4,420,315
System Development & Demonstration	3,178,005	4,317,752	600	4,318,352	5,639,364
Management Support	1,901,655	1,820,502		1,820,502	1,624,585
Operational Systems Development	1,416,677	1,286,510	2,500	1,289,010	1,105,748
Software And Digital Technology Pilot Programs	108,041	94,831		94,831	83,570
Total Research, Development, Test, & Evaluation	14,660,654	17,142,121	9,100	17,151,221	15,775,381
Summary Recap of FYDP Programs					
General Purpose Forces	559,789	372,120		372,120	404,375
Intelligence and Communications	262,480	248,995		248,995	212,694
Research and Development	13,733,825	16,382,072	9,100	16,391,172	15,055,009
Central Supply and Maintenance	101,466	132,270		132,270	75,317
Administration and Associated Activities	101				
Classified Programs	2,993	6,664		6,664	27,986
Total Research, Development, Test, & Evaluation	14,660,654	17,142,121	9,100	17,151,221	15,775,381

^{*}Includes enacted funding in the Ukraine Supplemental Appropriation Act, 2023 (Division B of Public Law 117-180) and Additional Ukraine Supplemental Appropriation Act, 2023 (Division M of Public Law 117-328).

Department of the Army FY 2024 President's Budget Exhibit R-1 FY 2024 President's Budget Total Obligational Authority (Dollars in Thousands)

	FY 2022 Actuals	FY 2023 Less Supplementals Enactment	FY 2023 Supplementals Enactment*	FY 2023 Total Enactment	FY 2024 Request
Summary Recap of Budget Activities					
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Applied Research	1,521,472	1,823,330		1,823,330	948,358
Advanced Technology Development	2,145,309	2,532,690		2,532,690	1,455,986
Advanced Component Development & Prototypes	3,799,417	4,631,111	6,000	4,637,111	4,420,315
System Development & Demonstration	3,178,005	4,317,752	600	4,318,352	5,639,364
Management Support	1,901,655	1,820,502		1,820,502	1,624,585
Operational Systems Development	1,416,677	1,286,510	2,500	1,289,010	1,105,748
Software And Digital Technology Pilot Programs	108,041	94,831		94,831	83,570
Total Research, Development, Test, & Evaluation	14,660,654	17,142,121	9,100	17,151,221	15,775,381
Summary Recap of FYDP Programs					
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Intelligence and Communications	262,480	248,995		248,995	212,694
Research and Development	13,733,825	16,382,072	9,100	16,391,172	15,055,009
Central Supply and Maintenance	101,466	132,270		132,270	75,317
Administration and Associated Activities	101			·	•
Classified Programs	2,993	6,664		6,664	27,986
Total Research, Development, Test, & Evaluation	14,660,654	17,142,121	9,100	17,151,221	15,775,381

^{*}Includes enacted funding in the Ukraine Supplemental Appropriation Act, 2023 (Division B of Public Law 117-180) and Additional Ukraine Supplemental Appropriation Act, 2023 (Division M of Public Law 117-328).

Department of the Army FY 2024 President's Budget Exhibit R-1 FY 2024 President's Budget Total Obligational Authority (Dollars in Thousands)

Mar 2023

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

Line <u>No</u>	Program Element Number	<u> Item</u>	<u>Act</u>	<u>Se</u> c	FY 2022 Actuals	FY 2023 Less Supplementals Enactment	FY 2023 Supplementals Enactment [*]	FY 2023 Total Enactment
1	0601102A	Defense Research Sciences	01	U	358,521	391,642		391,642
2	0601103A	University Research Initiatives	01	U	88,797	107,160		107,160
3	0601104A	University and Industry Research Centers	01	U	122,521	121,160		121,160
4	0601121A	Cyber Collaborative Research Alliance	01	U	5,067	5,355		5,355
5	0601601A	Artificial Intelligence and Machine Learning Basic Research	01	U	15,172	10,078		10,078
	Basic Resear	rch		_	590,078	635,395		635,395
6	0602002A	Army Agile Innovation and Development-Applied Research	02	U		1,000		1,000
7	0602115A	Biomedical Technology	02	U	11,489			
8	0602134A	Counter Improvised-Threat Advanced Studies	02	U	1,904	6,192		6,192
9	0602141A	Lethality Technology	02	U	89,285	194,717		194,717
10	0602142A	Army Applied Research	02	U	28,654	27,833		27 , 833
11	0602143A	Soldier Lethality Technology	02	U	201,221	253,539		253,539
12	0602144A	Ground Technology	02	U	214,489	264,523		264,523
13	0602145A	Next Generation Combat Vehicle Technology	02	U	239,284	277,445		277,445
14	0602146A	Network C3I Technology	02	U	161,759	212,115		212,115
15	0602147A	Long Range Precision Fires Technology	02	U	107,454	128,529		128,529
16	0602148A	Future Verticle Lift Technology	02	U	130,108	104,348		104,348
17	0602150A	Air and Missile Defense Technology	02	U	92,926	88,768		88,768
18	0602180A	Artificial Intelligence and Machine Learning Technologies	02	U	14,486	16,068		16,068

^{*}Includes enacted funding in the Ukraine Supplemental Appropriation Act, 2023 (Division B of Public Law 117-180) and Additional Ukraine Supplemental Appropriation Act, 2023 (Division M of Public Law 117-328).

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Department of the Army FY 2024 President's Budget Exhibit R-1 FY 2024 President's Budget Total Obligational Authority

(Dollars in Thousands)

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

Line	Program Element			Se	FY 2024
<u>No</u>	Number	<u>Item</u>	Act	<u> </u>	Request
1	0601102A	Defense Research Sciences	01	Ū	296,670
2	0601103A	University Research Initiatives	01	Ū	75,672
3	0601104A	University and Industry Research Centers	01	Ū	108,946
4	0601121A	Cyber Collaborative Research Alliance	01	U	5,459
5	0601601A	Artificial Intelligence and Machine Learning Basic Research	01	U	10,708
	Basic Resear	rch			497,455
6	0602002A	Army Agile Innovation and Development-Applied Research	02	U	5,613
7	0602115A	Biomedical Technology	02	U	
8	0602134A	Counter Improvised-Threat Advanced Studies	02	U	6,242
9	0602141A	Lethality Technology	02	U	85,578
10	0602142A	Army Applied Research	02	U	34,572
11	0602143A	Soldier Lethality Technology	02	U	104,470
12	0602144A	Ground Technology	02	U	60,005
13	0602145A	Next Generation Combat Vehicle Technology	02	U	166,500
14	0602146A	Network C3I Technology	02	U	81,618
15	0602147A	Long Range Precision Fires Technology	02	U	34,683
16	0602148A	Future Verticle Lift Technology	02	U	73,844
17	0602150A	Air and Missile Defense Technology	02	U	33,301
18	0602180A	Artificial Intelligence and Machine Learning Technologies	02	U	24,142

Department of the Army FY 2024 President's Budget Exhibit R-1 FY 2024 President's Budget Total Obligational Authority (Dollars in Thousands)

Mar 2023

Line <u>No</u>	Program Element <u>Number</u>	<u>Item</u>	Act	Se C	FY 2022 Actuals	FY 2023 Less Supplementals Enactment	FY 2023 Supplementals Enactment*	FY 2023 Total Enactment
19	0602181A	All Domain Convergence Applied Research	02	U	25,019	27,360		27,360
20	0602182A	C3I Applied Research	02	U	11,954	27,868		27,868
21	0602183A	Air Platform Applied Research	02	U	6,356	41,588		41,588
22	0602184A	Soldier Applied Research	02	U	10,660	15,716		15,716
23	0602213A	C3I Applied Cyber	02	U	12,119	13,605		13,605
24	0602386A	Biotechnology for Materials - Applied Research	02	U	19,889	21,811		21,811
25	0602785 A	Manpower/Personnel/Training Technology	02	U	18,414	19,649		19,649
26	0602787A	Medical Technology	02	U	124,002	80,656		80,656
	Applied Rese	earch			1,521,472	1,823,330		1,823,330
27	0603002A	Medical Advanced Technology	03	U	147,287	31,588		31,588
28	0603007A	Manpower, Personnel and Training Advanced Technology	03	U	13,865	15,598		15,598
29	0603025A	Army Agile Innovation and Demonstration Artificial Intelligence and Machine Learning Advanced	03	U	21,420	20,900		20,900
30	0603040A	Technologies	03	U	876	6,395		6,395
31	0603041A	All Domain Convergence Advanced Technology	03	U	20,095	45,377		45,377
32	0603042A	C3I Advanced Technology	03	U	3,036	12,716		12,716
33	0603043A	Air Platform Advanced Technology	03	U	727	17,946		17,946
34	0603044A	Soldier Advanced Technology	03	U	858	479		479
35	0603115A	Medical Development	03	U	25,540			
36	0603116A	Lethality Advanced Technology	03	U	7,772	9,796		9,796
37	0603117A	Army Advanced Technology Development	03	U	76,815	134,874		134,874

^{*}Includes enacted funding in the Ukraine Supplemental Appropriation Act, 2023 (Division B of Public Law 117-180) and Additional Ukraine Supplemental Appropriation Act, 2023 (Division M of Public Law 117-328).

Department of the Army FY 2024 President's Budget Exhibit R-1 FY 2024 President's Budget Total Obligational Authority

(Dollars in Thousands)

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

Program Line Element FY 2024 Se No Number Item Act C Request 19 0602181A All Domain Convergence Applied Research 02 U 14,297 20 0602182A C3I Applied Research 02 U 30,659 21 0602183A Air Platform Applied Research 02 U 48,163 22 0602184A Soldier Applied Research 02 U 18,986 23 0602213A C3I Applied Cyber 02 U 22,714 24 0602386A Biotechnology for Materials - Applied Research 02 U 16,736 25 0602785A Manpower/Personnel/Training Technology 02 19,969 26 0602787A Medical Technology 02 66,266 Applied Research 948,358 27 0603002A Medical Advanced Technology 0.3 4,147 28 0603007A Manpower, Personnel and Training Advanced Technology 03 U 16,316 29 0603025A Army Agile Innovation and Demonstration 03 U 23,156 Artificial Intelligence and Machine Learning Advanced 30 0603040A Technologies 03 U 13,187 31 0603041A All Domain Convergence Advanced Technology 03 U 33,332 32 0603042A C3I Advanced Technology 03 U 19,225 33 0603043A Air Platform Advanced Technology 03 14,165 U 34 0603044A Soldier Advanced Technology 03 U 1,214 35 0603115A Medical Development 03 U 36 0603116A Lethality Advanced Technology 03 Ü 20,582 37 0603117A Army Advanced Technology Development 03 136,280

Department of the Army FY 2024 President's Budget Exhibit R-1 FY 2024 President's Budget Total Obligational Authority (Dollars in Thousands)

Mar 2023

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

Line <u>No</u>	Program Element Number	<u>Item</u>	<u>Act</u>	<u>Se</u>	FY 2022 Actuals	FY 2023 Less Supplementals Enactment	FY 2023 Supplementals Enactment*	FY 2023 Total Enactment
38	0603118A	Soldier Lethality Advanced Technology	03	U	148,458	154,639		154,639
39	0603119A	Ground Advanced Technology	03	U	281,637	415,846		415,846
40	0603134A	Counter Improvised-Threat Simulation	03	U	23,920	21,486		21,486
41	0603386A	Biotechnology for Materials - Advanced Research	03	U	51,774	56,853		56,853
42	0603457A	C3I Cyber Advanced Development	03	U	61,426	41,354		41,354
43	0603461A	High Performance Computing Modernization Program	03	U	222,220	301,964		301,964
44	0603462A	Next Generation Combat Vehicle Advanced Technology	03	U	294,491	471,434		471,434
45	0603463A	Network C3I Advanced Technology	03	U	205,576	177,917		177,917
46	0603464A	Long Range Precision Fires Advanced Technology	03	U	138,482	202,830		202,830
47	0603465A	Future Vertical Lift Advanced Technology	03	U	255,323	272,551		272,551
48	0603466A	Air and Missile Defense Advanced Technology	03	U	125,027	99,147		99,147
49	0603920A	Humanitarian Demining	03	υ	18,684	21,000		21,000
	Advanced Tec	thnology Development			2,145,309	2,532,690		2,532,690
51	0603305A	Army Missle Defense Systems Integration	04	U	56,579	118,001		118,001
52	0603308A	Army Space Systems Integration	04	U	25,401	30,945		30,945
53	0603327A	Air and Missile Defense Systems Engineering	04	U	15,000	15,000		15,000
54	0603619A	Landmine Warfare and Barrier - Adv Dev	04	U	44,933	55,953	6,000	61,953
55	0603639A	Tank and Medium Caliber Ammunition	04	U	61,641	51,488		51,488
56	0603645A	Armored System Modernization - Adv Dev	04	U	154,010	135,122		135,122
57	0603747A	Soldier Support and Survivability	04	U	2,791	4,060		4,060
58	0603766A	Tactical Electronic Surveillance System - Adv Dev	04	U	113,365	72,314		72,314

^{*}Includes enacted funding in the Ukraine Supplemental Appropriation Act, 2023 (Division B of Public Law 117-180) and Additional Ukraine Supplemental Appropriation Act, 2023 (Division M of Public Law 117-328).

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Department of the Army FY 2024 President's Budget Exhibit R-1 FY 2024 President's Budget Total Obligational Authority

(Dollars in Thousands)

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

	Program				
Line	Element			Se	FY 2024
No	Number	<u>Item</u>	Act	⊆ _	Request
38	0603118A	Soldier Lethality Advanced Technology	03	Ū	102,778
39	0603119A	Ground Advanced Technology	03	U	40,597
40	0603134A	Counter Improvised-Threat Simulation 03		U	21,672
41	0603386A	Biotechnology for Materials - Advanced Research 03		U	59,871
42	0603457A	C3I Cyber Advanced Development 03 U		U	28,847
43	0603461A	High Performance Computing Modernization Program	03	U	255,772
44	0603462A	Next Generation Combat Vehicle Advanced Technology	03	U	217,394
45	0603463A	Network C3I Advanced Technology	03	U	105,549
46	0603464A	Long Range Precision Fires Advanced Technology	03	U	153,024
47	0603465A	Future Vertical Lift Advanced Technology	03	U	158,795
48	0603466A	Air and Missile Defense Advanced Technology	03	U	21,015
49	0603920A	Humanitarian Demining	03	Ū	9,068
	Advanced Tec	chnology Development		_	1,455,986
51	0603305A	Army Missle Defense Systems Integration	04	U	12,904
52	0603308A	Army Space Systems Integration	04	U	19,120
53	0603327A	Air and Missile Defense Systems Engineering	04	U	
54	0603619A	Landmine Warfare and Barrier - Adv Dev	04	U	47,537
55	0603639A	Tank and Medium Caliber Ammunition	04	U	91,323
56	0603645A	Armored System Modernization - Adv Dev	04	U	43,026
57	0603747A	Soldier Support and Survivability	04	U	3,550
58	0603766A	Tactical Electronic Surveillance System - Adv Dev	04	U	65 , 567

Department of the Army FY 2024 President's Budget Exhibit R-1 FY 2024 President's Budget Total Obligational Authority (Dollars in Thousands)

Mar 2023

Line	Program Element			Se	FY 2022	FY 2023 Less Supplementals	FY 2023 Supplementals	FY 2023 Total
No	Number	<u>Item</u>	<u>Act</u>	⊆_	Actuals	Enactment	Enactment*	Enactment
59	0603774A	Night Vision Systems Advanced Development	04	U	62,534	97,478		97,478
60	0603779A	Environmental Quality Technology - Dem/Val	04	U	22,491	76,749		76,749
61	0603790A	NATO Research and Development	04	U	3,639	3,805		3,805
62	0603801A	Aviation - Adv Dev	04	U	1,138,457	1,157,472		1,157,472
63	0603804A	Logistics and Engineer Equipment - Adv Dev	04	U	10,797	24,638		24,638
64	0603807A	Medical Systems - Adv Dev	04	U	27,768	5,598		5,598
65	0603827A	Soldier Systems - Advanced Development	04	U	25,288	23,444		23,444
66	0604017A	Robotics Development	04	U	78,309	26,555		26,555
67	0604019A	Expanded Mission Area Missile (EMAM)	04	Ū	26,855	258,320		258,320
68	0604020A	Cross Functional Team (CFT) Advanced Development & Prototyping	J 04	U		77,000		77,000
69	0604035A	Low Earth Orbit (LEO) Satellite Capability	04	U	18,922	35,509		35,509
70	0604036A	Multi-Domain Sensing System (MDSS) Adv Dev	04	U	50,548	47,915		47,915
71	0604037A	Tactical Intel Targeting Access Node (TITAN) Adv Dev	04	U	28,347	863		863
72	0604100A	Analysis Of Alternatives	04	U	9,723	10,659		10,659
73	0604101A	Small Unmanned Aerial Vehicle (SUAV) (6.4)	04	U	892	1,425		1,425
74	0604103A	Electronic Warfare Planning and Management Tool (EWPMT)	04	Ū				
75	0604113A	Future Tactical Unmanned Aircraft System (FTUAS)	04	U	76,349	134,719		134,719
76	0604114A	Lower Tier Air Missile Defense (LTAMD) Sensor	04	U	408,766	380,147		380,147
77	0604115A	Technology Maturation Initiatives	04	U .	127,725	219,742		219,742
78	0604117A	Maneuver - Short Range Air Defense (M-SHORAD)	04	U	37,939	274,838		274,838

^{*}Includes enacted funding in the Ukraine Supplemental Appropriation Act, 2023 (Division B of Public Law 117-180) and Additional Ukraine Supplemental Appropriation Act, 2023 (Division M of Public Law 117-328).

Department of the Army FY 2024 President's Budget Exhibit R-1 FY 2024 President's Budget Total Obligational Authority

(Dollars in Thousands)

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

	Program				
Line	Element			<u>Se</u>	FY 2024
No	Number	Item	Act	≗ _	Request
59	0603774A	Night Vision Systems Advanced Development	04	U	73,675
60	0603779A	Environmental Quality Technology - Dem/Val	04	U	31,720
61	0603790A	NATO Research and Development	04	U	4,143
62	0603801A	Aviation - Adv Dev	04	U	1,502,160
63	0603804A	Logistics and Engineer Equipment - Adv Dev	04	U	7,604
64	0603807A	Medical Systems - Adv Dev	04	U	1,602
65	0603827A	Soldier Systems - Advanced Development	04	U	27,681
66	0604017A	Robotics Development	04	U	3,024
67	0604019A	Expanded Mission Area Missile (EMAM)	04	Ū	97,018
68	0604020A	Cross Functional Team (CFT) Advanced Development & Prototyping	. 0.4	U	117,557
69	0604035A			-	,
		Low Earth Orbit (LEO) Satellite Capability	04	Ū	38,851
70	0604036A	Multi-Domain Sensing System (MDSS) Adv Dev	04	Ū	191,394
71	0604037A	Tactical Intel Targeting Access Node (TITAN) Adv Dev	04	U	10,626
72	0604100A	Analysis Of Alternatives	04	U	11,095
73	0604101A	Small Unmanned Aerial Vehicle (SUAV) (6.4)	04	U	5,144
74	0604103A	Electronic Warfare Planning and Management Tool (EWPMT)	04	U	2,260
75	0604113A			-	•
		Future Tactical Unmanned Aircraft System (FTUAS)	04	Ū	53,143
76	0604114A	Lower Tier Air Missile Defense (LTAMD) Sensor	04	U .	816,663
77	0604115A	Technology Maturation Initiatives	04	U	281,314
78	0604117A	Maneuver - Short Range Air Defense (M-SHORAD)	04	U	281,239

Department of the Army FY 2024 President's Budget Exhibit R-1 FY 2024 President's Budget Total Obligational Authority (Dollars in Thousands)

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Line <u>No</u>	Program Element Number	Item	Act	Se C	FY 2022 Actuals	FY 2023 Less Supplementals Enactment	FY 2023 Supplementals Enactment*	FY 2023 Total Enactment
79	0604119A	Army Advanced Component Development & Prototyping	04	<u> </u>	179,483	198,111	Enactment	
80	0604120A	Assured Positioning, Navigation and Timing (PNT)	04	U	80,858	•		198,111
00	000112011	Assured lositioning, Navigation and liming (FNI)	04	U	80,838	57,620		57,620
81	0604121A	Synthetic Training Environment Refinement & Prototyping	04	U	198,815	242,468		242,468
		Counter Improvised-Threat Demonstration, Prototype						
82	0604134A	Development, and Testing	04	U	12,891	14,840		14,840
83	0604135A	Strategic Mid-Range Fires	04	U		404,291		404,291
84	0604182A	Hypersonics	04	U	305,406	238,168		238,168
85	0604403A	Future Interceptor	04	U	6,643	8,179		8,179
86	0604531A	Counter - Small Unmanned Aircraft Systems Advanced Development	04	U	18,449	35,110		35,110
87	0604541A	Unified Network Transport	04	U	33,879	36,966		36,966
88	0604644A	Mobile Medium Range Missile	04	U	275,989			
89	0604785A	Integrated Base Defense (Budget Activity 4)	04	U	2,040			
90	0305251A	Cyberspace Operations Forces and Force Support	04	U	55,895	55,599		55,599
999	99999999	Classified Programs	04	U				
	Advanced Com	mponent Development & Prototypes			3,799,417	4,631,111	6,000	4,637,111
91	0604201A	Aircraft Avionics	05	U	6,411	3,335		3,335
92	0604270A	Electronic Warfare Development	05	U	29,683	4,140		4,140
93	0604601A	Infantry Support Weapons	05	U	77,027	83,329		83,329
94	0604604A	Medium Tactical Vehicles	05	U	9,177	22,163		22,163
95	0604611A	JAVELIN	05	U	8,202	16,186		16,186

^{*}Includes enacted funding in the Ukraine Supplemental Appropriation Act, 2023 (Division B of Public Law 117-180) and Additional Ukraine Supplemental Appropriation Act, 2023 (Division M of Public Law 117-328).

Department of the Army FY 2024 President's Budget Exhibit R-1 FY 2024 President's Budget Total Obligational Authority (Dollars in Thousands)

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

	Program				
Line No	Element Number	Item	3-4	Se	FY 2024
_			Act	⊆ _	Request
79	0604119A	Army Advanced Component Development & Prototyping	04	Ū	204,914
80	0604120A	Assured Positioning, Navigation and Timing (PNT)	04	U	40,930
81	0604121A	Synthetic Training Environment Refinement & Prototyping Counter Improvised-Threat Demonstration, Prototype	04	Ū	109,714
82	0604134A	Development, and Testing	04	U	16,426
83	0604135A	Strategic Mid-Range Fires	04	U	31,559
84	0604182A	Hypersonics	04	U	43,435
85	0604403A	Future Interceptor	04	Ū	8,040
86	0604531A	Counter - Small Unmanned Aircraft Systems Advanced Development	04	U	64,242
87	0604541A	Unified Network Transport	04	U	40,915
88	0604644A	Mobile Medium Range Missile	04	U	
89	0604785A	Integrated Base Defense (Budget Activity 4)	04	U	
90	0305251A	Cyberspace Operations Forces and Force Support	04	U	
999	99999999	Classified Programs	04	U	19,200
	Advanced Con	mponent Development & Prototypes			4,420,315
91	0604201A	Aircraft Avionics	05	U	13,673
92	0604270A	Electronic Warfare Development	05	U	12,789
93	0604601A	Infantry Support Weapons	05	Ū	64,076
94	0604604A	Medium Tactical Vehicles	05	U	28,226
95	0604611A	JAVELIN	05	U	7,827

Department of the Army FY 2024 President's Budget Exhibit R-1 FY 2024 President's Budget Total Obligational Authority (Dollars in Thousands)

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

Line <u>No</u>	Program Element Number	Item	3	Se	FY 2022	FY 2023 Less Supplementals	FY 2023 Supplementals	FY 2023 Total
96			Act	≗ _	Actuals	Enactment	Enactment*	Enactment
	0604622A	Family of Heavy Tactical Vehicles	05	U	27,406	53,014		53,014
97	0604633A	Air Traffic Control	05	U	4,244	2,623		2,623
98	0604641A	Tactical Unmanned Ground Vehicle (TUGV)	05	U		109,849		109,849
99	0604642A	Light Tactical Wheeled Vehicles	05	U	1,980			
100	0604645A	Armored Systems Modernization (ASM) - Eng Dev	05	U	118,296	63,131		63,131
101	0604710A	Night Vision Systems - Eng Dev	05	Ū	41,831	92,951		92,951
102	0604713A	Combat Feeding, Clothing, and Equipment	05	U	1,598	1,566		1,566
103	0604715A	Non-System Training Devices - Eng Dev	05	U	28,605	18,588		18,588
104	0604741A	Air Defense Command, Control and Intelligence - Eng Dev	05	U	58,633	55,541		55,541
105	0604742A	Constructive Simulation Systems Development	05	U	21,424	29,481		29,481
106	0604746A	Automatic Test Equipment Development	05	U	8,486	5,178		5,178
107	0604760A	Distributive Interactive Simulations (DIS) - Eng Dev	05	U	12,182	8,189		8,189
108	0604798A	Brigade Analysis, Integration and Evaluation	05	U	20,976	21,086		21,086
109	0604802A	Weapons and Munitions - Eng Dev	05	U	287,787	285,778	600	286,378
110	0604804A	Logistics and Engineer Equipment - Eng Dev	05	U	49,201	75,669		75,669
111	0604805A	Command, Control, Communications Systems - Eng Dev Medical Materiel/Medical Biological Defense Equipment - Eng	05	U	19,372	44,993		44,993
112	0604807A	Dev	05	U	43,023	5,513		5,513
113	0604808A	Landmine Warfare/Barrier - Eng Dev	05	U	28,622	37,150		37,150
114	0604818A	Army Tactical Command & Control Hardware & Software	05	U	146,291	131,190		131,190
115	0604820A	Radar Development	05	U	124,832	71,259		71,259

^{*}Includes enacted funding in the Ukraine Supplemental Appropriation Act, 2023 (Division B of Public Law 117-180) and Additional Ukraine Supplemental Appropriation Act, 2023 (Division M of Public Law 117-328).

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Department of the Army FY 2024 President's Budget Exhibit R-1 FY 2024 President's Budget Total Obligational Authority (Dollars in Thousands)

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Line	Program Element			Se	FY 2024
No	Number	<u>Item</u>	Act	<u>c</u>	Request
96	0604622A	Family of Heavy Tactical Vehicles	05	U	44,197
97	0604633A	Air Traffic Control	05	U	1,134
98	0604641A	Tactical Unmanned Ground Vehicle (TUGV)	05	U	142,125
99	0604642A	Light Tactical Wheeled Vehicles	05	U	53,564
100	0604645A	Armored Systems Modernization (ASM) - Eng Dev	05	U	102,201
101	0604710A	Night Vision Systems - Eng Dev	05	U	48,720
102	0604713A	Combat Feeding, Clothing, and Equipment	05	U	2,223
103	0604715A	Non-System Training Devices - Eng Dev	05	Ü	21,441
104	0604741A	Air Defense Command, Control and Intelligence - Eng Dev	05	U	74,738
105	0604742A	Constructive Simulation Systems Development	05	U	30,985
106	0604746A	Automatic Test Equipment Development	05	U	13,626
107	0604760A	Distributive Interactive Simulations (DIS) - Eng Dev	05	U	8,802
108	0604798A	Brigade Analysis, Integration and Evaluation	05	U	20,828
109	0604802A	Weapons and Munitions - Eng Dev	05	U	243,851
110	0604804A	Logistics and Engineer Equipment - Eng Dev	05	U	37,420
111	0604805A	Command, Control, Communications Systems - Eng Dev Medical Materiel/Medical Biological Defense Equipment - Eng	05	U	34,214
112	0604807A	Dev	05	U	6,496
113	0604808A	Landmine Warfare/Barrier - Eng Dev	05	U	13,581
114	0604818A	Army Tactical Command & Control Hardware & Software	05	U	168,574
115	0604820A	Radar Development	05	U	94,944

Department of the Army FY 2024 President's Budget Exhibit R-1 FY 2024 President's Budget Total Obligational Authority (Dollars in Thousands)

Mar 2023

Line	Program Element			<u>Se</u>	FY 2022	FY 2023 Less Supplementals	FY 2023 Supplementals	FY 2023 Total
No	Number	<u> Item</u>	Act	으	Actuals	Enactment	Enactment*	Enactment
116	0604822A	General Fund Enterprise Business System (GFEBS)	05	U	15,395	10,402		10,402
117	0604827A	Soldier Systems - Warrior Dem/Val	05	U	6,219	19,408		19,408
118	0604852A	Suite of Survivability Enhancement Systems - EMD	05	U	93,207	100,384		100,384
119	0604854A	Artillery Systems - EMD	05	U	25,000	48,106		48,106
120	0605013A	Information Technology Development	05	U	125,109	104,134		104,134
121	0605018A	Integrated Personnel and Pay System-Army (IPPS-A)	05	U	65,230	67,519		67,519
122	0605028A	Armored Multi-Purpose Vehicle (AMPV)	05	U	34,262			
123	0605030A	Joint Tactical Network Center (JTNC)	05	U	15,752	17,936		17,936
124	0605031A	Joint Tactical Network (JTN)	05	U	27,849	30,150		30,150
125	0605035A	Common Infrared Countermeasures (CIRCM)	05	U	15,982	11,523		11,523
126	0605036A	Combating Weapons of Mass Destruction (CWMD)	05	U				
127	0605038A	Nuclear Biological Chemical Reconnaissance Vehicle (NBCRV) Sensor Suite	05	Ü	7,340			
128	0605041A	Defensive CYBER Tool Development	05	U	18,811	39,029		39,029
129	0605042A	Tactical Network Radio Systems (Low-Tier)	05	U	27,688	4,426		4,426
130	0605047A	Contract Writing System	05	U	20,195	13,742		13,742
131	0605049A	Missile Warning System Modernization (MWSM)	0.5.	U				
132	0605051A	Aircraft Survivability Development	05	U	60,127	19,123		19,123
133	0605052A	Indirect Fire Protection Capability Inc 2 - Block 1	05	U	175,604	131,093		131,093
134	0605053A	Ground Robotics	05	U	15,763	26,809		26,809
135	0605054A	Emerging Technology Initiatives	05	U	219,284	244,047		244,047

^{*}Includes enacted funding in the Ukraine Supplemental Appropriation Act, 2023 (Division B of Public Law 117-180) and Additional Ukraine Supplemental Appropriation Act, 2023 (Division M of Public Law 117-328).

Department of the Army FY 2024 President's Budget Exhibit R-1 FY 2024 President's Budget Total Obligational Authority (Dollars in Thousands)

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

Program Line Element FY 2024 Se No Number Item Act c Request 116 0604822A General Fund Enterprise Business System (GFEBS) 05 2,965 117 0604827A Soldier Systems - Warrior Dem/Val 05 U 11,333 118 0604852A Suite of Survivability Enhancement Systems - EMD 05 U 79,250 119 0604854A Artillery Systems - EMD 0.5 IJ 42,490 120 0605013A Information Technology Development 104,024 121 0605018A Integrated Personnel and Pay System-Army (IPPS-A) U 05 102,084 122 0605028A Armored Multi-Purpose Vehicle (AMPV) 05 U 123 0605030A Joint Tactical Network Center (JTNC) 05 U 18,662 124 0605031A Joint Tactical Network (JTN) 0.5 U 30,328 125 0605035A Common Infrared Countermeasures (CIRCM) 05 11,509 126 0605036A Combating Weapons of Mass Destruction (CWMD) 05 U 1,050 Nuclear Biological Chemical Reconnaissance Vehicle (NBCRV) 127 0605038A Sensor Suite U 128 0605041A Defensive CYBER Tool Development 05 27,714 129 0605042A Tactical Network Radio Systems (Low-Tier) 05 U 4,318 130 0605047A Contract Writing System 05 U 16,355 131 0605049A Missile Warning System Modernization (MWSM) 05 U 27,571 132 0605051A Aircraft Survivability Development 0.5 IJ 24,900 133 0605052A Indirect Fire Protection Capability Inc 2 - Block 1 05 196,248 134 0605053A Ground Robotics 05 U 35,319 135 0605054A Emerging Technology Initiatives 0.5 U 201,274

Department of the Army FY 2024 President's Budget Exhibit R-1 FY 2024 President's Budget Total Obligational Authority (Dollars in Thousands)

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Line	Program Element			Se	FY 2022	FY 2023 Less Supplementals	FY 2023 Supplementals	FY 2023 Total
No	Number	<u> Item</u>	Act	≗ _	Actuals	Enactment	Enactment*	Enactment
136	0605143A	Biometrics Enabling Capability (BEC)	05	U	4,326	11,091		11,091
137	0605144A	Next Generation Load Device - Medium	05	U	14,835	22,439		22,439
138	0605145A	Medical Products and Support Systems Development	05	U	927			
139	0605148A	Tactical Intel Targeting Access Node (TITAN) EMD	05	U	54,972	108,987		108,987
140	0605203A	Army System Development & Demonstration	05	U	122,175	143,616		143,616
141	0605205A	Small Unmanned Aerial Vehicle (SUAV) (6.5)	05	U	2,192	6,530		6,530
142	0605206A	CI and HUMINT Equipment Program-Army (CIHEP-A) Joint Targeting Integrated Command and Coordination Suite	05	Ū				
143	0605216A	(JTIC2S)	05	U				
144	0605224A	Multi-Domain Intelligence	05	U	9,313	6,008		6,008
145	0605225A	SIO Capability Development	05	U	22,713			
146	0605231A	Precision Strike Missile (PrSM)	05	U	181,574	259,506		259,506
147	0605232A	Hypersonics EMD	05	U	107,404	633,499		633,499
148	0605233A	Accessions Information Environment (AIE)	05	U	16,177	10,088		10,088
149	0605235A	Strategic Mid-Range Capability	05	U		5,016		5,016
150	0605236A	Integrated Tactical Communications	05	U		12,447		12,447
151	0605450A	Joint Air-to-Ground Missile (JAGM)	05	U	2,467	2,366		2,366
152	0605457A	Army Integrated Air and Missile Defense (AIAMD) Counter - Small Unmanned Aircraft Systems Sys Dev &	05	U	154,257	263,545		263,545
153	0605531A	Demonstration	05	U	49,667	14,892		14,892
154	0605625A	Manned Ground Vehicle	05	U	194,936	554,925		554,925
155	0605766A	National Capabilities Integration (MIP)	05	U	13,454	17,030		17,030

^{*}Includes enacted funding in the Ukraine Supplemental Appropriation Act, 2023 (Division B of Public Law 117-180) and Additional Ukraine Supplemental Appropriation Act, 2023 (Division M of Public Law 117-328).

Department of the Army FY 2024 President's Budget Exhibit R-1 FY 2024 President's Budget Total Obligational Authority

(Dollars in Thousands)

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

	Program				
Line	Element			Se	FY 2024
No	Number	<u>Item</u>	Act	⊆ _	Request
136	0605143A	Biometrics Enabling Capability (BEC)	05	U	
137	0605144A	Next Generation Load Device - Medium	05	U	36,970
138	0605145A	Medical Products and Support Systems Development	05	U	
139	0605148A	Tactical Intel Targeting Access Node (TITAN) EMD	05	U	132,136
140	0605203A	Army System Development & Demonstration	05	U	81,657
141	0605205A	Small Unmanned Aerial Vehicle (SUAV) (6.5)	05	U	31,284
142	0605206A	CI and HUMINT Equipment Program-Army (CIHEP-A)	05	U	2,170
		Joint Targeting Integrated Command and Coordination Suite			
143	0605216A	(JTIC2S)	05	U	9,290
144	0605224A	Multi-Domain Intelligence	05	U	41,003
145	0605225A	SIO Capability Development	05	U	
146	0605231A	Precision Strike Missile (PrSM)	05	U	272,786
147	0605232A	Hypersonics EMD	05	U	900,920
148	0605233A	Accessions Information Environment (AIE)	05	U	27,361
149	0605235A	Strategic Mid-Range Capability	05	U	348,855
150	0605236A	Integrated Tactical Communications	05	U	22,901
151	0605450A	Joint Air-to-Ground Missile (JAGM)	05	U	3,014
152	0605457A	Army Integrated Air and Missile Defense (AIAMD)	05	U	284,095
		Counter - Small Unmanned Aircraft Systems Sys Dev &			
153	0605531A	Demonstration	05	U	36,016
154	0605625A	Manned Ground Vehicle	05	U	996,653
155	0605766A	National Capabilities Integration (MIP)	05	U	15,129

Department of the Army FY 2024 President's Budget Exhibit R-1 FY 2024 President's Budget Total Obligational Authority (Dollars in Thousands)

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Line <u>No</u>	Program Element Number	Item Joint Light Tactical Vehicle (JLTV) Engineering and	Act	Se C	FY 2022 Actuals	FY 2023 Less Supplementals Enactment	FY 2023 Supplementals Enactment*	FY 2023 Total Enactment
156	0605812A	Manufacturing Development Ph	05	U	2,470	9,376		9,376
157	0605830A	Aviation Ground Support Equipment	05	U	1,158	2,959		2,959
158	0303032A	TROJAN - RH12	05	U	3,362	3,761		3,761
159	0304270A	Electronic Warfare Development	05	U	75,520	99,938		99,938
	System Devel	opment & Demonstration		_	3,178,005	4,317,752	600	4,318,352
160	0604256A	Threat Simulator Development	06	U	60,749	138,937		138,937
161	0604258A	Target Systems Development	. 06	U	41,769	64,132		64,132
162	0604759A	Major T&E Investment	06	U	91,130	142,031		142,031
163	0605103A	Rand Arroyo Center	06	U	31,087	33,631		33,631
164	0605301A	Army Kwajalein Atoll	06	U	242,279	309,005		309,005
165	0605326A	Concepts Experimentation Program	06	U	80,386	86,824		86,824
166	0605502A	Small Business Innovative Research	06	U	374,118			
167	0605601A	Army Test Ranges and Facilities	06	U	362,223	417,567		417,567
168	0605602A	Army Technical Test Instrumentation and Targets	06	U	57,584	67,962		67,962
169	0605604A	Survivability/Lethality Analysis	06	U	35,042	36,500		36,500
170	0605606A	Aircraft Certification	06	Ū	2,398	4,777		4,777
171	0605702A	Meteorological Support to RDT&E Activities	06	U	6,389	6,958		6,958
172	0605706A	Materiel Systems Analysis	06	U	20,771	22,004		22,004
173	0605709A	Exploitation of Foreign Items	06	U	13,631	6,186		6,186
174	0605712A	Support of Operational Testing	06	U	54,797	70,718		70,718

^{*}Includes enacted funding in the Ukraine Supplemental Appropriation Act, 2023 (Division B of Public Law 117-180) and Additional Ukraine Supplemental Appropriation Act, 2023 (Division M of Public Law 117-328).

Department of the Army FY 2024 President's Budget Exhibit R-1 FY 2024 President's Budget Total Obligational Authority (Dollars in Thousands)

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Line	Program Element				
No	Number	Item	3-4	Se c	FY 2024
	114111201	Joint Light Tactical Vehicle (JLTV) Engineering and	Act	<u> </u>	Request
156	0605812A	Manufacturing Development Ph	05	U	27,243
157	0605830A	Aviation Ground Support Equipment	05	U	1,167
158	0303032A	TROJAN - RH12	05	U	3,879
159	0304270A	Electronic Warfare Development	05	U	137,186
	System Devel	lopment & Demonstration			5,639,364
160	0604256A	Threat Simulator Development	06	U	38,492
161	0604258A	Target Systems Development	06	U	11,873
162	0604759A	Major T&E Investment	06	U	76,167
163	0605103A	Rand Arroyo Center	06	U	37,078
164	0605301A	Army Kwajalein Atoll	06	U	314,872
165	0605326A	Concepts Experimentation Program	06	U	95,551
166	0605502A	Small Business Innovative Research	06	U	
167	0605601A	Army Test Ranges and Facilities	06	U	439,118
168	0605602A	Army Technical Test Instrumentation and Targets	06	U	42,220
169	0605604A	Survivability/Lethality Analysis	06	U	37,518
170	0605606A	Aircraft Certification	06	U	2,718
171	0605702A	Meteorological Support to RDT&E Activities	06	U	
172	0605706A	Materiel Systems Analysis	06	U	26,902
173	0605709A	Exploitation of Foreign Items	06	U	7,805
174	0605712A	Support of Operational Testing	06	U	75,133

Department of the Army FY 2024 President's Budget Exhibit R-1 FY 2024 President's Budget Total Obligational Authority (Dollars in Thousands)

Mar 2023

Line <u>No</u>	Program Element <u>Number</u>	<u>Item</u>	<u>Act</u>	Se C	FY 2022 Actuals	FY 2023 Less Supplementals Enactment	FY 2023 Supplementals Enactment*	FY 2023 Total Enactment
175	0605716A	Army Evaluation Center	06	U	65,693	67,058		67,058
176	0605718A	Army Modeling & Sim X-Cmd Collaboration & Integ	06	U	2,537	6,097		6,097
177	0605801A	Programwide Activities	06	U	90,443	89,793		89,793
178	0605803A	Technical Information Activities	06	U	31,174	37,652		37,652
179	0605805A	Munitions Standardization, Effectiveness and Safety	06	Ü	54,922	60,645		60,645
180	0605857A	Environmental Quality Technology Mgmt Support	06	U	1,724	1,912		1,912
181	0605898A	Army Direct Report Headquarters - R&D - MHA	06	U	48,798	53,271		53,271
182	0606002A	Ronald Reagan Ballistic Missile Defense Test Site	06	U	78,187	89,602		89,602
183	0606003A	CounterIntel and Human Intel Modernization	06	U	10,641	1,424		1,424
184	0606105A	Medical Program-Wide Activities	06	U	37,616			
185	0606942A	Assessments and Evaluations Cyber Vulnerabilities	06	U	5,466	5,816		5,816
186	0909999A	Financing for Cancelled Account Adjustments	06	U	101			
	Management S	Support			1,901,655	1,820,502		1,820,502
187	0603778A	MLRS Product Improvement Program	07	U	11,865	18,463		18,463
188	0605024A	Anti-Tamper Technology Support	07	U	8,544	9,284		9,284
189	0607131A	Weapons and Munitions Product Improvement Programs	07	U	39,994	54,674	2,500	57,174
190	0607136A	Blackhawk Product Improvement Program	07	U	14,599			
191	0607137A	Chinook Product Improvement Program	07	U	65,960	67,513		67,513
192	0607139A	Improved Turbine Engine Program	07	U	250,533	228,036		228,036
193	0607142A	Aviation Rocket System Product Improvement and Development	07	Ü	8,831	11,312		11,312

^{*}Includes enacted funding in the Ukraine Supplemental Appropriation Act, 2023 (Division B of Public Law 117-180) and Additional Ukraine Supplemental Appropriation Act, 2023 (Division M of Public Law 117-328).

Department of the Army FY 2024 President's Budget Exhibit R-1 FY 2024 President's Budget Total Obligational Authority (Dollars in Thousands)

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

Program Line Element Se FY 2024 No Number Item Act c Request 175 0605716A Army Evaluation Center 06 71,118 176 0605718A Army Modeling & Sim X-Cmd Collaboration & Integ U 06 11,204 177 0605801A Programwide Activities 06 U 93,895 178 0605803A Technical Information Activities 06 31,327 U 179 0605805A Munitions Standardization, Effectiveness and Safety 06 50,409 180 0605857A Environmental Quality Technology Mgmt Support 1,629 181 0605898A Army Direct Report Headquarters - R&D - MHA 06 U 55,843 182 0606002A Ronald Reagan Ballistic Missile Defense Test Site 06 U 91,340 183 0606003A CounterIntel and Human Intel Modernization 06 U 6,348 184 0606105A Medical Program-Wide Activities 06 185 0606942A Assessments and Evaluations Cyber Vulnerabilities 06 U 6,025 186 0909999A Financing for Cancelled Account Adjustments 06 Management Support 1,624,585 187 0603778A MLRS Product Improvement Program 07 U 14,465 188 0605024A Anti-Tamper Technology Support 07 U 7,472 189 0607131A Weapons and Munitions Product Improvement Programs U 8,425 190 0607136A Blackhawk Product Improvement Program 07 1,507 191 0607137A Chinook Product Improvement Program 07 U 9,265 192 0607139A Improved Turbine Engine Program 07 U 201,247 193 0607142A Aviation Rocket System Product Improvement and Development 07 U 3,014

Department of the Army FY 2024 President's Budget Exhibit R-1 FY 2024 President's Budget Total Obligational Authority

(Dollars in Thousands)

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

Line <u>No</u>	Program Element Number	Item_	Act	<u>Se</u> c	FY 2022 Actuals	FY 2023 Less Supplementals Enactment	FY 2023 Supplementals Enactment*	FY 2023 Total Enactment
194	0607143A	Unmanned Aircraft System Universal Products	07		4,426	10,512		10,512
195	0607145A	Apache Future Development	07	U	9,700	25,074		25,074
196	0607148A	AN/TPQ-53 Counterfire Target Acquisition Radar System	07	U	46,009	61,559		61,559
197	0607150A	Intel Cyber Development	07	U	3,611	13,343		13,343
198	0607312A	Army Operational Systems Development	07	U	28,029	26,131		26,131
199	0607313A	Electronic Warfare Development	07	U	5,673	6,432		6,432
200	0607315A	Enduring Turbine Engines and Power Systems	07	U				·
201	0607665A	Family of Biometrics	07	U	1,101	1,114		1,114
202	0607865A	Patriot Product Improvement	07	U	125,851	152,312		152,312
203	0203728A	Joint Automated Deep Operation Coordination System (JADOCS)	07	U	24,556	19,311		19,311
204	0203735A	Combat Vehicle Improvement Programs	07	U	272,438	194,229		194,229
205	0203743A	155mm Self-Propelled Howitzer Improvements	07	U	168,683	116,510		116,510
206	0203744A	Aircraft Modifications/Product Improvement Programs	07	U	10,000			
207	0203752A	Aircraft Engine Component Improvement Program	07	U	127	148		148
208	0203758A	Digitization	07	U	3 , 759			
209	0203801A	Missile/Air Defense Product Improvement Program	07	U	122	3,109		3,109
210	0203802A	Other Missile Product Improvement Programs	07	U	9,956	9,027		9,027
211	0205412A	Environmental Quality Technology - Operational System Dev	07	Ū	253	793		793
212	0205778A	Guided Multiple-Launch Rocket System (GMLRS)	07	U	58,516	20,180		20,180
213	0208053A	Joint Tactical Ground System	07	U	11,379	8,813		8,813

^{*}Includes enacted funding in the Ukraine Supplemental Appropriation Act, 2023 (Division B of Public Law 117-180) and Additional Ukraine Supplemental Appropriation Act, 2023 (Division M of Public Law 117-328).

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Department of the Army FY 2024 President's Budget Exhibit R-1 FY 2024 President's Budget Total Obligational Authority

(Dollars in Thousands)

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

	Program				
Line	Element			Se	FY 2024
<u>No</u>	Number	<u>Item</u>	Act	⊆ _	Request
194	0607143A	Unmanned Aircraft System Universal Products	07	U	25,393
195	0607145A	Apache Future Development	07	Ū	10,547
196	0607148A	AN/TPQ-53 Counterfire Target Acquisition Radar System	07	U	54,167
197	0607150A	Intel Cyber Development	07	U	4,345
198	0607312A	Army Operational Systems Development	07	U	19,000
199	0607313A	Electronic Warfare Development	07	U	6,389
200	0607315A	Enduring Turbine Engines and Power Systems	07	U	2,411
201	0607665A	Family of Biometrics	07	U	797
202	0607865A	Patriot Product Improvement	07	U	177,197
203	0203728A	Joint Automated Deep Operation Coordination System (JADOCS)	07	U	42,177
204	0203735 A	Combat Vehicle Improvement Programs	07	U	146,635
205	0203743A	155mm Self-Propelled Howitzer Improvements	07	U	122,902
206	0203744A	Aircraft Modifications/Product Improvement Programs	07	U	
207	0203752A	Aircraft Engine Component Improvement Program	07	U	146
208	0203758A	Digitization	07	U	1,515
209	0203801A	Missile/Air Defense Product Improvement Program	07	U	4,520
210	0203802A	Other Missile Product Improvement Programs	07	U	10,044
211	0205412A	Environmental Quality Technology - Operational System Dev	07	U	281
212	0205778A	Guided Multiple-Launch Rocket System (GMLRS)	07	U	75,952
213	0208053A	Joint Tactical Ground System	07	U	203

Department of the Army FY 2024 President's Budget Exhibit R-1 FY 2024 President's Budget Total Obligational Authority

(Dollars in Thousands)

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

Line	Program Element			Se	FY 2022	FY 2023 Less Supplementals	FY 2023 Supplementals	FY 2023 Total
No	Number	Item	Act	<u>c</u>	Actuals	Enactment	Enactment*	Enactment
216	0303028A	Security and Intelligence Activities	07	U	24,506		•	
217	0303140A	Information Systems Security Program	07	U	15,680	17,209		17,209
218	0303141A	Global Combat Support System	07	U	43,643	22,600		22,600
219	0303142A	SATCOM Ground Environment (SPACE)	07	U	16,186	18,297		18,297
222	0305179A	Integrated Broadcast Service (IBS)	07	U	5,430	9,926		9,926
223	0305204A	Tactical Unmanned Aerial Vehicles	07	U	8,410	4,500		4,500
224	0305206A	Airborne Reconnaissance Systems	07	Ū	11,782	17,165		17,165
225	0305219A	MQ-1C Gray Eagle UAS	07	U		,		17,100
226	0307665A	Biometrics Enabled Intelligence	07	U	2,066			
227	0708045A	End Item Industrial Preparedness Activities	07	U	101,466	132,270		132,270
999	99999999	Classified Programs	07	U	2,993	6,664		6,664
	Operational	Systems Development			1,416,677	1,286,510	2,500	1,289,010
228	0608041A	Defensive CYBER - Software Prototype Development	08	U	108,041	94,831	2,300	94,831
	Software And	Digital Technology Pilot Programs		_	108,041	94,831		94,831
Total :	Total Research, Development, Test and Evaluation, Army				14,660,654	17,142,121	9,100	17,151,221

^{*}Includes enacted funding in the Ukraine Supplemental Appropriation Act, 2023 (Division B of Public Law 117-180) and Additional Ukraine Supplemental Appropriation Act, 2023 (Division M of Public Law 117-328).

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Department of the Army FY 2024 President's Budget Exhibit R-1 FY 2024 President's Budget Total Obligational Authority

(Dollars in Thousands)

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

Total Research, Development, Test and Evaluation, Army

	Program				
Line	Element			Se	FY 2024
<u>No</u>	Number	Item	Act	c	Request
216	0303028A	Security and Intelligence Activities	07	ט	301
217	0303140A	Information Systems Security Program	07	U	15,323
218	0303141A	Global Combat Support System	07	Ū	13,082
219	0303142A	SATCOM Ground Environment (SPACE)	07	U	26,838
222	0305179A	Integrated Broadcast Service (IBS)	07	Ü	9,456
223	0305204A	Tactical Unmanned Aerial Vehicles	07	U	
224	0305206A	Airborne Reconnaissance Systems	07	U	
225	0305219A	MQ-1C Gray Eagle UAS	07	U	6,629
226	0307665A	Biometrics Enabled Intelligence	07	U	
227	0708045A	End Item Industrial Preparedness Activities	07	U	75,317
999	999999999	Classified Programs	07	U	8,786
	Operational	Systems Development			1,105,748
228	0608041A	Defensive CYBER - Software Prototype Development	08	Ū	83,570
	Software And	d Digital Technology Pilot Programs		_	83,570

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15,775,381

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Program Element Table of Contents (by Budget Activity then Line Item Number)

Appropriation 2040: Research, Development, Test & Evaluation, Army

Line #	Budget Activity	Program Element Number	Program Element Title	Page
224	08	0608041A	Defensive CYBER - Software Prototype Development\	Volume 4c - 1

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Program Element Table of Contents (Alphabetically by Program Element Title)

Program Element Title	Program Element Number	Line #	BA Page
Defensive CYBER - Software Prototype Development	0608041A	224	08Volume 4c - 1

Exhibit R-2, RDT&E Budget Item Justification: PB 2024 Army

Appropriation/Budget Activity

R-1 Program Element (Number/Name)

2040: Research, Development, Test & Evaluation, Army I BA 8: Software and Digital Technology Pilot Programs

PE 0608041A I Defensive CYBER - Software Prototype Development

Prior FY 2024 FY 2024 FY 2024 Cost To Total **COST (\$ in Millions)** FY 2022 FY 2023 OCO Total FY 2025 FY 2026 FY 2027 FY 2028 Complete Cost Years Base Total Program Element 108.041 94.831 83.570 83.570 72.059 71.660 72.447 72.559 0.000 575.167 CD1: Defensive Cyber -108.041 86.292 83.570 83.570 72.059 71.660 72.447 72.559 0.000 566.628 Software Prototype Devel DD2: Joint Cyber Warfighting 8.539 0.000 8.539 Architecture Software

Note

Project DD2: Joint Cyber Warfighting Architecture Software has no requested funding in FY 2024.

A. Mission Description and Budget Item Justification

Defensive Cyber Operations (DCO) programs are key elements of the DCO Maneuver Baseline infrastructure, platform, and tools. The employment of defensive capabilities achieves the following objectives: deter, destroy and defeat cyberspace threats; gain time; economy of force; control key terrain; protect tasked critical assets and infrastructure; and develop intelligence.

Defensive Cyber Operations (DCO) consists of platform and software programs which are key elements of the DCO Maneuver Baseline infrastructure, platform, and tools. DCO supports the Army Cyber Command (ARCYBER), Information Warfare Operations Center (IWOC), FORSCOM, (5) Regional Cyber Centers (RCCs), Cyber Warfare Battalion (CWB), Multi-Domain Task Force (MDTF), Cyber Protection Brigade (CPB), and (41) Cyber Protection Teams (CPTs) in COMPO 1/2/3.

Defensive Cyber Tools and Analytics:

- * DCO Cyberspace Analytics (PEO EIS) Strategic Level
- * DCO Mission Planning (PEO EIS) Strategic Level (Program sunsetting in FY 2023)
- * DCO Tools Suite (PEO EIS) Garrison/Tactical Level
- * DCO User Activity Monitoring (PEO EIS) Strategic Level
- * DCO Forensics and Malware Analysis (PEO EIS) Garrison/Tactical Level
- * DCO Threat Emulation (PEO EIS) Strategic Level
- * DCO DCO Development Environment (DCODE) (PEO EIS)
- * DCO Counter Infiltration (PEO EIS) Garrison/Tactical Level (Funding beginning in FY 2023)

Platforms/Levels:

* DCO - Garrison DCO Platform - (PEO EIS) - Base Level

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Exhibit R-2, RDT&E Budget Item Justification: PB 2024 Army Date: March 2023

Appropriation/Budget Activity

R-1 Program Element (Number/Name)

2040: Research, Development, Test & Evaluation, Army I BA 8: Software and Digital Technology Pilot Programs

PE 0608041A I Defensive CYBER - Software Prototype Development

EV 0000	EV 0000	EV 0004 D	EV 0004 000	EV 0004 T-4-1
FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total
108.841	94.888	11.809	-	11.809
108.041	94.831	83.570	-	83.570
-0.800	-0.057	71.761	-	71.761
-	-			
-	-			
-	-			
-	-			
-	-			
-0.800	-			
-	-			
-	-	71.761	-	71.761
-	-0.057	-	-	-
	108.041 -0.800 - - - - - -0.800 - -	108.841 94.888 108.041 94.831 -0.800 -0.057 -0.800 - 	108.841 94.888 11.809 108.041 94.831 83.570 -0.800 -0.057 71.761 	108.841 94.888 11.809 - 108.041 94.831 83.570 - -0.800 -0.057 71.761 - - - - - </td

Change Summary Explanation

FY 2024 funding \$71.761 million to properly restore Defensive Cyber funding to Army from CYBERCOM.

Exhibit R-2A, RDT&E Project Ju	ıstification	: PB 2024 A	Army							Date: Marc	ch 2023	
Appropriation/Budget Activity 2040 / 8				, , ,			Project (Number/Name) CD1 / Defensive Cyber - Software Prototype Devel					
COST (\$ in Millions)	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	Cost To Complete	Total Cost
CD1: Defensive Cyber - Software Prototype Devel	-	108.041	86.292	83.570	-	83.570	72.059	71.660	72.447	72.559	0.000	566.628
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Defensive Cyber Operations (DCO) programs are key elements of the DCO Maneuver Baseline infrastructure, platform, and tools. The employment of defensive capabilities achieves the following objectives: deter, destroy and defeat cyberspace threats; gain time; economy of force; control key terrain; protect tasked critical assets and infrastructure; and develop intelligence.

Defensive Cyber Operations (DCO) consists of platform and software programs which are key elements of the DCO Maneuver Baseline infrastructure, platform, and tools. DCO supports the Army Cyber Command (ARCYBER), Information Warfare Operations Center (IWOC), FORSCOM, (5) Regional Cyber Centers (RCCs), Cyber Warfare Battalion (CWB), Multi-Domain Task Force (MDTF), Cyber Protection Brigade (CPB), and (41) Cyber Protection Teams (CPTs) in COMPO 1/2/3.

Defensive Cyber Tools and Analytics:

- * DCO Cyberspace Analytics (PEO EIS) Strategic Level
- * DCO Mission Planning (PEO EIS) Strategic Level (Program sunsetting in FY 2023)
- * DCO Tools Suite (PEO EIS) Garrison/Tactical Level
- * DCO User Activity Monitoring (PEO EIS) Strategic Level
- * DCO Forensics and Malware Analysis (PEO EIS) Garrison/Tactical Level
- * DCO Threat Emulation (PEO EIS) Strategic Level
- * DCO DCO Development Environment (DCODE) (PEO EIS)
- * DCO Counter Infiltration (PEO EIS) Garrison/Tactical Level (Funding beginning in FY 2023)
- * ARCYBER Rapid Cyber Prototyping (ARCYBER)

Platforms/Levels:

* DCO - Garrison DCO Platform - (PEO EIS) - Base Level

B. Accomplishments/Planned Programs (\$ in Millions)	FY 2022	FY 2023	FY 2024
Title: Defensive Cyber Operations (DCO) - Tactical DCO Infrastructure (TDI) (PEO C3T)	5.545	-	-
Description: TDI is a software only program that pre-configures applications from DCO's Tool Suite to allow local and remote Cyber defenders the ability to conduct cyberspace surveillance and maneuver against an adversary traversing within the tactical			

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PE 0608041A: Defensive CYBER - Software Prototype Dev...

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Exhibit R-2A, RDT&E Project Justification: PB 2024 Army			Date: M	arch 2023	
Appropriation/Budget Activity 2040 / 8	R-1 Program Element (Number/Name) PE 0608041A I Defensive CYBER - Softwa re Prototype Development	Project (Nu CD1 / Defen Devel		l ame) ⁄ber - Softwar	re Prototyp
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2	2022	FY 2023	FY 2024
network. The TDI capability is hosted on the TSI and will reside witl Commands (ASCC) through Brigade.	hin the Command Post at echelon Army Service Compone	ent			
Title: Defensive Cyber Operations - Cyber Analytics (PEO EIS)		3	5.794	20.712	22.10
Description: DCO Cyberspace Analytics Big Data Platform (BDP) called Gabriel Nimbus (GN), which offers interfaces and visualization counter-reconnaissance activities meant to discover the presence of FY 2023 Plans: Prior to BA8 Pilot program, this capability was funded with RDTE further to BA8 Pilot program, this capability was funded with RDTE further to BA8 Pilot program, this capability was funded with RDTE further to BA8 Pilot program, this capability was funded with RDTE further to BA8 Pilot program, this capability was funded with RDTE further to BA8 Pilot program, this capability was funded with RDTE further to BA8 Pilot program, this capability was funded with RDTE further to BA8 Pilot program, this capability was funded with RDTE further to BA8 Pilot program, this capability was funded with RDTE further to BA8 Pilot program, this capability was funded with RDTE further to BA8 Pilot program, this capability was funded with RDTE further to BA8 Pilot program, this capability was funded with RDTE further to BA8 Pilot program, this capability was funded with RDTE further to BA8 Pilot program, this capability was funded with RDTE further to BA8 Pilot program, this capability was funded with RDTE further to BA8 Pilot program, this capability was funded with RDTE further to BA8 Pilot program, this capability was funded with RDTE further to BA8 Pilot program, this capability was funded with RDTE further to BA8 Pilot program, this capability was funded with RDTE further to BA8 Pilot program, this capability was funded with RDTE further to BA8 Pilot program, this capability was funded with RDTE further to BA8 Pilot program, this capability was funded with RDTE further to BA8 Pilot program, this capability was funded with RDTE further to BA8 Pilot program, this capability was funded with RDTE further to BA8 Pilot program, this capability was funded with RDTE further to BA8 Pilot program, this capability was funded with RDTE further to BA8 Pilot program, this capability was funded with RDTE further to BA8 Pilot	on accessible by cyberspace defenders at all levels to facing advanced or sophisticated cyber threats and vulnerability and the properties of advanced or sophisticated cyber threats and vulnerability and the properties of the pr	litate ties. ate n O s			
FY 2024 Plans: Prior to BA8 Pilot program, this capability was funded with RDTE further to BA8 Pilot program, this capability was funded with RDTE further 2024 funds managed professional services, hardware integration support, patches, and Rapid Analytic Deployment Management Franch and continuous modernization of Gabriel Nimbus up to 14.7 petably development of BDP applications and analytics to include the assotraining for new capability releases through the Cyberspace Analytic FY 2023 to FY 2024 Increase/Decrease Statement: FY 2024 funding increased by \$1.394 million for development of BDE engineering, integration, cybersecurity, testing, training for new capability and the support of the programment of BDE engineering, integration, cybersecurity, testing, training for new capability and the programment of BDE engineering, integration, cybersecurity, testing, training for new capability and the programment of BDE engineering, integration, cybersecurity, testing, training for new capability and the programment of BDE engineering, integration, cybersecurity, testing, training for new capability and the programment of BDE engineering, integration, cybersecurity, testing, training for new capability and the programment of BDE engineering.	on, LEAP/LTAC fielding and testing, security updates, systemework (RADMF) licenses for management, orchestration tes (PB). Additionally, FY 2024 funds supports the continuciated engineering, integration, cybersecurity, testing, and cs Development Support Contract. OP applications and analytics to include the associated	n, Jous			
Cyberspace Analytics Development Support Contract and developed Title: Defensive Cyber Operations (DCO) - Mission Planning (PEO)	ment of an organic BDP management and orchestration to	ool.	2.085	2.809	
Description: DCO Mission Planning (DCOMP) Solution is a softwar understanding, workflow for order execution, and capabilities that be because operators which enable targeted decision support products.	are solution that facilitates situational awareness and oridge the gap between strategic, operational, and tactical				

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PE 0608041A: Defensive CYBER - Software Prototype Dev...
Army

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Exhibit R-2A, RDT&E Project Justification: PB 2024 Army		Date: N	larch 2023	
Appropriation/Budget Activity 2040 / 8	R-1 Program Element (Number/Name) PE 0608041A I Defensive CYBER - Softwa re Prototype Development	Project (Number/Name) CD1 / Defensive Cyber - Softwal Devel FY 2022 FY 2023		e Prototyp
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2022	FY 2023	FY 2024
FY 2023 Plans: Prior to BA8 Pilot program, this capability was funded with RDTE FY 2023 DCOMP solution will transition to Joint Cyber Command transition and sustainment of the DCOMP applications during the Army's specific requirements not delivered through the joint solutions.	and Control (JCC2) in FY 2023. The funding supports the transition to JCC2. FY 2023 also supports development of	the		
FY 2023 to FY 2024 Increase/Decrease Statement: There is no funding request in FY 2024. DCOMP transitioned to J	ICC2 in FY 2023.			
Title: Defensive Cyber Operations (DCO) - Tools Suite (PEO EIS	5)	21.287	21.486	22.96
Description: DCO Tools Suite is a flexible and dynamic software Protection Teams (CPTs), Regional Cyber Centers (RCCs), and actions. DCO tools consists of prepositioned and tailorable software support or directly cause effects through the execution of Cyber Newcouted or managed within a DCO platform.	in some cases local defenders to perform DCO and cyberse are packages that are integrated and available at all echelor	is to		
FY 2023 Plans: Prior to BA8 Pilot program, this capability would have been funde FY 2023 OPA Plans: \$2.793 million FY 2023 OMA Plans: \$18.693 million FY 2023 funding supports new tools, training, license renewals, a				
FY 2024 Plans: Prior to BA8 Pilot program, this capability would have been funde FY 2024 OPA Plans: \$2.985 million FY 2024 OMA Plans: \$19.978 million FY 2024 funding continues to support new tools, training, license				
FY 2023 to FY 2024 Increase/Decrease Statement: FY 2024 funding increased by \$1.477 million to support the next of and GDP capabilities require virtual operating systems to run DC runs through the operating system, cyber defenders will not have platforms and will not have the ability to conduct defensive cyber	generation of GDP and DDS-M operating systems. The DDS O Tools on the hardware platforms. Without the hypervisor t the ability to access virtual machines inherent on the hardw	hat		
Title: Defensive Cyber Operations (DCO) - User Activity Monitori	ng (PEO EIS)	14.870	12.155	10.51

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PE 0608041A: Defensive CYBER - Software Prototype Dev... Page 5 of 27 Army

Exhibit R-2A, RDT&E Project Justification: PB 2024 Army		Date: N	larch 2023	
Appropriation/Budget Activity 2040 / 8	PE 0608041A / Defensive CYBER - Softwa	Project (Number/N D1 <i>I Defensive C</i> Devel	re Prototype	
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2022	FY 2023	FY 2024
Description: DCO User Activity Monitoring (UAM) is the primary car UAM is mainly a software-based, scalable solution that has an on-p and mitigates internal risks associated with the theft or misuse of cr with a centralized UAM cell sending data to a core Insider Threat He	remise solution and a cloud solution. It proactively identified itical, mission essential data. It utilizes an integrated approaction	6		
FY 2023 Plans: Prior to BA8 Pilot program, this capability was funded with RDTE fu FY 2023 funding supports continued system security updates and p COTS UAM on-premise tool suite (UAM-P) on the SIPR and JWICS Additionally, FY 2023 funding supports the hardware maintenance, for the deployment of the UAM Special Access Program (SAP) capa analysis on the Army's SAP network. FY 2023 funding also supports development, engineering, testing, accreditation, and integration of UAM capability (UAM-C) fully integrated with the Army's Big Data P	atches, accreditation, and hardware maintenance of the sometworks in support of the Army's Insider Threat program. System security updates and patching, and software licens ability to monitor, capture, and analyze data for behavioral is the continuous modernization of the UAM capability for the Big Data Platform (BDP) applications for a cloud-based	e		
FY 2024 Plans: Prior to BA8 Pilot program, this capability was funded with RDTE fu FY 2024 funding supports continued hardware maintenance, syster current COTS UAM tool suite of the on-premises UAM (UAM-P) cap to support the deployment of the UAM-C capability. Additionally, FY security updates and patching, and software licenses for the UAM SFY 2024 funding also supports the continued development, engineer Platform (BDP) applications to deploy the UAM-C capability to replate	n security updates and patching, and software licenses for pability and migration of data to the Army's Big Data Platfor 2024 funding supports the hardware maintenance, system special Access Program (SAP) solution fielded in FY 2023. Ering, testing, accreditation, and integration of the Big Data	m		
FY 2023 to FY 2024 Increase/Decrease Statement: FY 2024 funding decreased by \$1.641 million as a result of reduced UAM-C and the integration of the Collection Tool capability.	I software licensing costs due to the transition from UAM-P	to		
Title: Defensive Cyber Operations (DCO) - Forensics and Malware	Analysis (PEO EIS)	1.190	2.116	2.477
Description: DCO Forensics and Malware Analysis (F&MA) capab regional, and local cyberspace defenders to perform forensics eithe Malware capabilities provides a sandboxlike, virtual environment that malware decomposition and behavior analysis. Forensics gives cyb	r remotely or locally. Forensics is evidence related and at allows for the conduct of real-time, automated and dynar			

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Exhibit R-2A, RDT&E Project Justification: PB 2024 Army		Date: N	larch 2023					
Appropriation/Budget Activity 2040 / 8	R-1 Program Element (Number/Name) PE 0608041A / Defensive CYBER - Softwa re Prototype Development	Project (Number/I CD1 / Defensive C Devel	r/Name) Cyber - Software Prototy					
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2022	FY 2023	FY 2024				
analyze evidence from portable electronic devices, removable med process rapidly triages an incident and place the impacted system								
FY 2023 Plans: Prior to BA8 Pilot program, this capability would have been funded FY 2023 funding supports annual licenses renewals, maintenance support costs.		am						
FY 2024 Plans: Prior to BA8 Pilot program, this capability would have been funded FY 2024 funding supports annual licenses renewals, maintenance support costs.		am						
FY 2023 to FY 2024 Increase/Decrease Statement: FY 2024 funding increased by \$0.361 million to support additional ARCYBER's F&MA Cell, Regional Cyber Center (RCC), Cyber Pro	· · ·							
Title: Defensive Cyber Operations (DCO) - Threat Emulation (PEC	EIS)	3.346	6.686	5.23				
Description: DCO Threat Emulation capability is a software based through multi-vectors of unknown, partially known, or known access real world threat tactics, techniques, and procedures (TTPs) again identities, phishing and social engineering, mobile devices, and will exposures.	s methods. Threat Emulation will enable the implementation st risk areas such as web services, endpoints, passwords	and						
FY 2023 Plans: Prior to BA8 Pilot program, this capability was funded with RDTE for FY 2023 funds licenses, new equipment training (NET), travel, engine deployment of up to 5000 endpoint agents and 12 on-premises operational user footprint consisting of Multi-Domain Task Force (Negional Cyber Center - Europe (RCC-E), RCC-Pacific, RCC-CON	ineering support, and professional services needed for Virtual Machine (VM) Management Consoles for the key MDTF), Persistent Cyber Training Environment (PCTE),							
FY 2024 Plans: Prior to BA8 Pilot program, this capability was funded with RDTE for	unding (PE 0605041A EV5).							

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PE 0608041A: Defensive CYBER - Software Prototype Dev... Army

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Exhibit R-2A, RDT&E Project Justification: PB 2024 Army			Date: N	larch 2023	
Appropriation/Budget Activity 2040 / 8	R-1 Program Element (Number/Name) PE 0608041A I Defensive CYBER - Softwa re Prototype Development		(Number/N Defensive C	Name) yber - Softwai	re Prototyp
B. Accomplishments/Planned Programs (\$ in Millions)			FY 2022	FY 2023	FY 2024
FY 2024 funds yearly licenses to support 25 On-Premises VM Mana endpoint agents needed to operate Threat Emulation software fielde system security updates, patches, and continuous modernization of	d at all designated locations. Additionally, FY 2024 funds				
FY 2023 to FY 2024 Increase/Decrease Statement: FY 2024 funding decreased by \$1.447 million due to decrease in decocur in FY 2023.	ployment activities and NET as most of the deployments	will			
Title: Defensive Cyber Operations (DCO) - Garrison DCO Platform -	- Next Generation (PEO EIS)		-	5.755	7.00
Description: The Garrison DCO Platform (GDP) is a system that proto defend garrison network environments from a remote location. It is employment of the software tools necessary to compute and analyzed ensure necessary data is retained locally or easily accessible via the	ngests data via Test Access Points (TAPs), enables the e the data, and offers a storage and forwarding capability				
FY 2023 Plans: Prior to BA8 Pilot program, this capability was funded with OPA fund Garrison DCO Platform (GDP) was added to Defensive Cyber - Soft CD1, in FY 2023 to support development of GDP next generation ga	ware Prototype Development PE 0608041A, Project Coc	e			
FY 2024 Plans: Prior to BA8 Pilot program, this capability was funded with OPA fund FY 2024 funding supports the research and development of the next procurement of the capability.					
FY 2023 to FY 2024 Increase/Decrease Statement: FY 2024 funding increased by \$1.247 million to support additional G integration for these efforts.	DP next generation system development, engineering ar	nd			
Title: Defensive Cyber Operations (DCO) - Counter Infiltration (PEO	EIS)		-	1.255	1.83
Description: Counter Infiltration (formerly Threat Deception) suppor Infiltration operations to detect and respond to advanced persistent to Defenders employ this capability to conduct defensive cyberspace of detect and respond to adversary malicious presence and actions. The using deception tactics, techniques, and procedures (TTP). This cap principles of deception (ways) to conduct effective DCO-IDM mission	threat (APT) within the defended network enclave. Our Coperations (DCO) internal defensive measures (DCO-IDM) is capability provides the functional ability conduct DCO pability provides the means employing fundamental milita) to -IDM			

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Exhibit R-2A, RDT&E Project Justification: PB 2024 Army		Date: N	March 2023				
Appropriation/Budget Activity 2040 / 8	R-1 Program Element (Number/Name) PE 0608041A I Defensive CYBER - Softwa re Prototype Development	Project (Number/ CD1 / Defensive C Devel	Number/Name) fensive Cyber - Software Pro				
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2022	FY 2023	FY 2024			
FY 2023 Plans: Prior to BA8 Pilot program, this capability would have been funded Counter Infiltration was added to Defensive Cyber - Software Proto 2023 to support prototyping effort for Counter Infiltration capability.	otype Development PE 0608041A, Project Code CD1, in F	Y					
FY 2024 Plans: Prior to BA8 Pilot program, this capability would have been funded FY 2024 funding supports the procurement of 25,000 licenses per	,						
FY 2023 to FY 2024 Increase/Decrease Statement: FY 2024 funding increased by \$0.578 million to support the deploy	ment of counter infiltration capability to the RCC.						
Title: Defensive Cyber Operations (DCO) - DCO Development En	vironment (PEO EIS)	12.467	-				
Description: DCO Development Environment (DCODE) (formerly integration, upgrade, assess, optimization and Soldier operational management and consists of the following capabilities: (1) Forge - assessment capabilities during the development and integration pl and (2) Development Network - provides the capability to remote in framework for Cyber Protection Teams (CPTs)).	environment. It is designed to provide centralized lifecycle physical or virtual asset that provides integration and hases of operations (centrally managed patching and secu	rity);					
Title: Defensive Cyber Operations (DCO) - Management Services	(PEO EIS)	9.592	13.318	10.13			
Description: Funding provides program management services an perform mission critical implementation, fielding, system engineeri ACAT IV programs in various phases of development and product	ng, logistics, programmatic, and acquisition support for nin						
FY 2023 Plans: Prior to BA8 Pilot program, this capability was funded with RDTE f 0128B63000). FY 2023 funding provides continued program management service contractors that perform mission critical implementation, fielding, s support for nine ACAT IV programs in various phases of developm FY 2024 Plans: Prior to BA8 Pilot program, this capability was funded with RDTE f 0128B63000).	es and support from a mix of government matrix personnel system engineering, logistics, programmatic, and acquisitionent and production.						

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PE 0608041A: Defensive CYBER - Software Prototype Dev... Army

Exhibit R-2A, RDT&E Project Justification: PB 2024 Army		Date: N	larch 2023	
Appropriation/Budget Activity 2040 / 8	R-1 Program Element (Number/Name) PE 0608041A I Defensive CYBER - Softwa re Prototype Development	Project (Number/N CD1 / Defensive C Devel	•	re Prototyp
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2022	FY 2023	FY 2024
FY 2024 funding provides continued program management service and contractor that perform mission critical implementation, fieldir support for eight ACAT IV programs in various phases of develop	ng, system engineering, logistics, programmatic, and acquisi	ition		
FY 2023 to FY 2024 Increase/Decrease Statement: FY 2024 funding decreased by \$3.182 million to fund other DCO of Development PE 0608041A, Project Code CD1, in development of Forces.		ре		
Title: Defensive Cyber Operations (DCO) - Rapid Cyber Prototyp	ing (ARCYBER)	1.865	-	1.30
Description: ARCYBER Rapid Cyber Prototyping program provid assess cutting-edge non-program-of-record cyber-operations pec environments and data to tailor capabilities and prototypes to ARC (TWC) executes these pilot and prototyping efforts through its Arrand Innovation Center (ArCTIC) laboratory.	uliar technologies and capabilities against ARCYBER's real CYBER's needs. The ARCYBER Technical Warfare Center			
FY 2024 Plans: Prior to BA8 Pilot program, this capability was funded with RDTE ARCYBER plans to focus its FY 2024 rapid cyber prototyping efforms defensive cyberspace operations and big data platform-related so network monitoring and visualization, and advanced modeling and its Cyber Fusion Innovation Center (CFIC) by increasing industry academia collaboration on state-of-the-art approaches to cyber of	orts on identifying and assessing novel non-program-of-reco- olutions for automated vulnerability and anomaly detection, d predictive analytics. ARCYBER will continue to mature and academia outreach to drive ARCYBER, industry, and	rd		
FY 2023 to FY 2024 Increase/Decrease Statement: FY 2024 funding increased by \$1.300 million will support ARCYB from industry and academia, and increase the throughput of relev operational outcomes and to inform future portfolio investments. For prototyping of capabilities such as advanced defensive cyberspace automation of cyber-related workflows, and provably secure systems.	ant non-program-of-record prototypes to achieve ARCYBEF TY 2024 funding allows ARCYBER to conduct rapid cyber be operations (DCO) advanced analytics and algorithms, hyp			
	Accomplishments/Planned Programs Subt	totals 108.041	86.292	83.57

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Exhibit R-2A, RDT&E Project Justif	fication: PB	2024 Army							Date: Mai	rch 2023	
Appropriation/Budget Activity 2040 / 8				PE 06	rogram Eler 608041A / De stotype Deve	efensive CYE	er/Name) BER - Softwa		Number/Na fensive Cyb	i me) per - Softward	e Prototype
C. Other Program Funding Summa	ry (\$ in Milli	ons)		I				2010.			
			FY 2024	FY 2024	FY 2024					Cost To	
<u>Line Item</u>	FY 2022	FY 2023	Base	OCO	<u>Total</u>	FY 2025	FY 2026	FY 2027	FY 2028	Complete	Total Cost
• B63103: <i>Advanced</i>	27.389	-	13.848	-	13.848	16.144	20.942	20.626	20.643	0.000	119.592
Cyber Tool Development											
B66350: ARCYBER DEFENSIVE	-	18.239	0.000	-	0.000	-	-	-	-	0.000	18.239
CYBER OPERATIONS											
B89001: Insider Threat	-	1.796	1.502	-	1.502	1.753	1.760	1.761	1.763	0.000	10.335
Program - Unit Activity Monitoring											
• 0605041A: Defensive	18.811	39.029	27.714	-	27.714	24.268	21.430	21.494	21.620	0.000	174.366
CYBER Tool Development											

Remarks

OPA PE B63103 - DCO hardware procurement, fielding, and new equipment training for Garrison DCO Platform (GDP), Deployable Defensive Systems (DDS), and DCODE Armory.

OPA PE B66350 (FY 2023 only) - DCO hardware procurement, fielding, and new equipment training for GDP, DDS, and DCODE Armory.

OPA PE B89001 - DCO Insider Threat Program - Unit Activity Monitoring for UAM operations conducted in support of the Army's insider threat program.

RDTE PE 0605041A Project EV5 - DCO platform infrastructure, integration, and assessments.

D. Acquisition Strategy

The DCO Information System Initial Capabilities Document (IS ICD) was approved on 19 December 2017 by the Army Requirements Oversight Council (AROC). DCO programs are under an IT Box construct with five-year term (FY 2018-2022) which aligns with current Requirements Definition Packages (RDPs). IT Box establishes funding thresholds, by appropriation, for a program over the capability's projected lifecycle of five (5) years. FY 2018-2022 IT Box expired in 4Q FY 2022. FY 2023-2027 IT Box Revalidation in staffing for approval.

The ARB approved GDP on 27 February 2018; Cyber Analytics and DCO Tool Suite RDPs on 18 May 2018; Mission Planning on 8 November 2018; User Activity Monitoring and Forensics and Malware Analysis on 18 March 2019; Threat Emulation on 24 August 2020; and Counter Infiltration on 10 February 2023. The MDA designated these as ACAT IV programs. Under subsequent reviews, the MDA approved agile acquisition approach to develop and deliver pre-configured software in a series of releases and capability drops in order to deliver full functional values of the RDP that align with DCO priorities. DCO programs utilize standard and FY 2018 National Defense Authorization Act (NDAA) Section 874 agile pilot evolutionary acquisition processes (30-90 rapid acquisition approach). DCO continually delivers new technologies and capabilities as a prototype and fields updated capabilities. DCO contract strategy utilizes multiple existing contracts vehicles to include Other Transactional Authority (OTA), Federal Acquisition Regulation (FAR)-based, Blanket Purchase Agreement (BPA), and Basic Ordering Agreement (BOA).

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2024 Army

R-1 Program Element (Number/Name)

Appropriation/Budget Activity 2040 / 8

PE 0608041A I Defensive CYBER - Softwa re Prototype Development

Project (Number/Name)

CD1 / Defensive Cyber - Software Prototype

Date: March 2023

Devel

Management Service	es (\$ in M	illions)		FY 2	2022	FY 2	2023		2024 ise		FY 2024 FY 2024 OCO Total				
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To	Total Cost	Target Value of Contract
DCO -Tactical DCO Infrastructure (TDI) (PEO C3T)	Various	CACI;CECOM: APG, MD	0.376	0.582	Mar 2022	-		-		-		-	Continuing	Continuing	-
DCO - Management Services (PEO EIS)	Various	Various : Various	9.009	10.667	Feb 2022	13.318	Mar 2023	10.136	Mar 2024	-		10.136	Continuing	Continuing	-
		Subtotal	9.385	11.249		13.318		10.136		-		10.136	Continuing	Continuing	N/A

Product Developme	nt (\$ in M	illions)		FY 2	2022	FY 2	2023	FY 2 Ba	2024 ise	FY 2024 OCO		FY 2024 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To	Total Cost	Target Value of Contract
DCO - Tactical DCO Infrastructure (TDI) (PEO C3T)	Various	Parsons; CECOM SEC; CCDC : APG, MD	4.065	4.176	Dec 2021	-		-		-		-	Continuing	Continuing	-
DCO - Cyber Analytics (PEO EIS)	C/FFP	Army Contracting Command - Rock Island (ACC-RI): Rock Island, IL	16.127	35.699	Jul 2022	20.712	Feb 2023	22.106	Jan 2024	-		22.106	Continuing	Continuing	-
DCO - Tools Suite (PEO EIS)	MIPR	GSA, FEDSIM : Washington, DC	18.541	21.428	Jun 2022	21.486	Mar 2023	22.963	Mar 2024	-		22.963	Continuing	Continuing	-
DCO - Mission Planning (PEO EIS)	C/FFP	ACC-RI : Rock Island, IL	1.110	2.085	Nov 2021	2.809	Nov 2022	-		-		-	0.000	6.004	-
DCO - User Activity Monitoring (PEO EIS)	C/FFP	ACC-RI : Rock Island, IL	3.639	14.852	Apr 2022	12.155	Jan 2023	10.514	Jan 2024	-		10.514	Continuing	Continuing	-
DCO - Forensics and Malware (PEO EIS)	C/FFP	ACC-RI : Rock Island, IL	1.231	1.190	Jun 2022	2.116	Mar 2023	2.477	Mar 2024	-		2.477	Continuing	Continuing	-
DCO - Threat Emulation (PEO EIS)	C/FFP	ACC-RI : Rock Island, IL	1.584	3.350	Oct 2021	6.686	Feb 2023	5.239	Feb 2024	-		5.239	Continuing	Continuing	-
DCO - Garrison DCO Platform (PEO EIS)	C/FFP	ACC-RI : Rock Island, IL	-	-		5.755	Mar 2023	7.002	Mar 2024	-		7.002	Continuing	Continuing	-
DCO - Counter Infiltration (PEO EIS)	C/FFP	ACC-RI : Rock Island, IL	-	-		1.255	May 2023	1.833	Apr 2024	-		1.833	Continuing	Continuing	-

Exhibit R-3, RDT&E I	Project C	ost Analysis: PB 2	2024 Army	y								Date:	March 20)23	
Appropriation/Budge 2040 / 8	et Activity	/				PE 060	8041A <i> I E</i>	•	umber/N CYBER - t	,		(Number Defensive	,	oftware F	Prototype
Product Developme	nt (\$ in M	illions)		FY 2	2022	FY 2	2023	FY 2 Ba	2024 ise		2024 CO	FY 2024 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To	Total Cost	Target Value of Contract
DCO - Rapid Cyber Prototyping (ARCYBER)	C/FFP	ACC-RI : Rock Island, IL	0.465	2.501	Apr 2022	-		1.300		-		1.300	Continuing	Continuing	-
		Subtotal	46.762	85.281		72.974		73.434		-		73.434	Continuing	Continuing	N/A
Support (\$ in Million	s)			FY 2	2022	FY 2	2023	FY 2 Ba	2024 ise		2024 CO	FY 2024 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To	Total Cost	Target Value of Contract
DCO - Tactical DCO Infrastructure (TDI) (PEO C3T)	Various	DLA; CECOM ILSC : Philadelphia, PA; APG, MD	0.179	0.213	Jun 2022	-		-		-		-	Continuing	Continuing	, -
,		Subtotal	0.179	0.213		-		-		-		-	Continuing	Continuing	N/A
Test and Evaluation	(\$ in Milli	ions)		FY 2	2022	FY 2	2023	FY 2 Ba	2024 ise		2024 CO	FY 2024 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To	Total Cost	Target Value of Contract
DCO - Tactical DCO Infrastructure (TDI) (PEO C3T)	Various	ATEC; CTSF : APG, MD; Ft. Hood TX	0.380	0.574	Mar 2022	-		-		-		-	Continuing	Continuing	_
DCO - DCO Development Environment (PEO EIS)	MIPR	ATEC, SEC and TYAD : Various	-	10.724	Jan 2022	-		-		-		-	Continuing	Continuing	-
		Subtotal	0.380	11.298		-		-		-		-	Continuing	Continuing	N/A
			Prior Years	FY	2022	FY 2	2023	FY 2 Ba	2024 Ise		2024 CO	FY 2024 Total	Cost To	Total Cost	Target Value of Contract
		Project Cost Totals	56.706	108.041		86.292		83.570		-		83.570	Continuing	Continuing	N/A

Remarks

Tactical DCO Infrastructure (TDI) funding transferred to Defensive Cyber Operations PE 0605041A, Project Code XU3 beginning in FY 2023. Contract award dates reflect when contract option years plan to be exercised/when funding plans to be obligated.

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Exhibit R-4, RDT&E Schedule Profile: PB 2024 Army

Date: March 2023

Appropriation/Budget Activity

2040 / 8

R-1 Program Element (Number/Name)
PE 0608041A I Defensive CYBER - Softwa
re Prototype Development

Project (Number/Name)

CD1 / Defensive Cyber - Software Prototype

Devel

Event Name	F	Y 2022	2		FY	20:	23		F١	/ 20)24	-		FY	20	25			FΥ	202	6		FY	20	27		FY	202	28
	1 2	3	4	1	2	3	4	1	2	3	3	4	1	2	3	. 4	ı	1	2	3	4	1	2	3	4	1	2	3	
DCO - TDI Development/Integration/Fixes - CD 2	TDI Dev/li	nt/Fix - CD	2																										
DCO - TDI Testing - CD 2	TDI Testin	ng - CD 2																											
DCO - TDI CD 2 Delivery		TDI De	livery -	CD 2																									
DCO - TDI Development/Integration/Fixes - CD 3	TDI D	ev/Int/Fix	- CD 3																										
DCO - TDI Testing - CD 3		ļ	TDI Te	esting -	- CD 3	3																							
DCO - Cyber Analytics POR Contract	DCO Cybe	er Analytic	s POR	Contr	act																								
DCO-Cyber Analytics GN Expansion II	DCO Cybe																												
DCO-Cyber Analytics Lower Echelon Analytics Platform (LE	DCO Cybe	er Analytic	s LEA	P Rele	esse																								
DCO-Cyber Analytics LEAP Tactical (LTAC) Release	DCO Cybe	er Analytic	s LTA	C Rele	ase																								
DCO-Cyber Analytics Enhancements, Testing & Deployment	DCO Cybe	er Analytic	s Enh	ancem	ents,	Testir	ng & De	ployme	ent																				
DCO-Cyber Analytics Capability Release 11	DCO Cybe	er Analytic	s CR1	1																									
DCO-Cyber Analytics Development Support Contract	DG	O Cyber A	\nalytic	s Dev	elopm	nent S	Support	Contra	ot																				
DCO-Cyber Analytics Capability Release 12		O Cyber A	nobeli	~ CB1																									

Exhibit R-4, RDT&E Schedule Profile: PB 2024 Army

Appropriation/Budget Activity

2040 / 8

R-1 Program Element (Number/Name)

PE 0608041A I Defensive CYBER - Softwa

re Prototype Development

Project (Number/Name)

CD1 I Defensive Cyber - Software Prototype

Date: March 2023

Devel

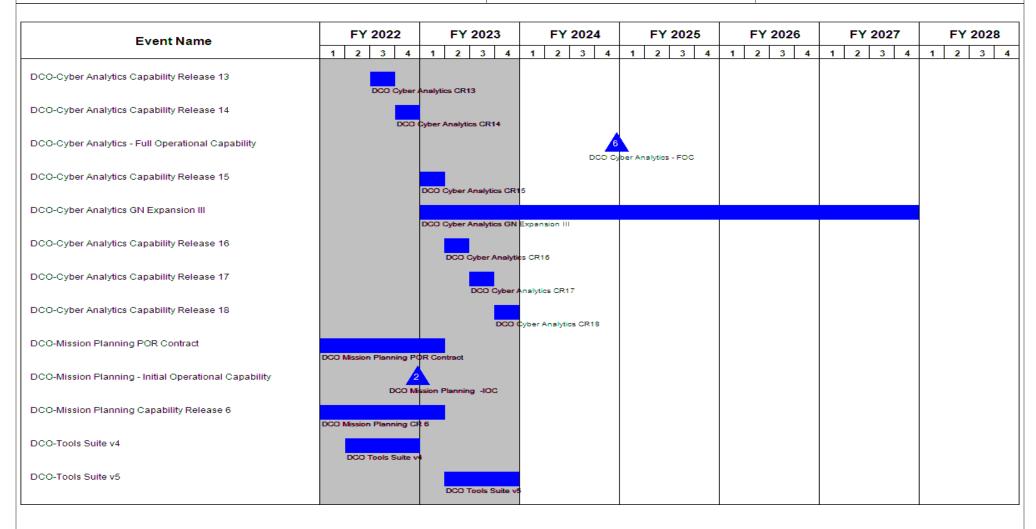


Exhibit R-4, RDT&E Schedule Profile: PB 2024 Army

Date: March 2023

Appropriation/Budget Activity

2040 / 8

R-1 Program Element (Number/Name) PE 0608041A *I Defensive CYBER - Softwa* Project (Number/Name)

CD1 I Defensive Cyber - Software Prototype

Devel

re Prototype Development

FY 2022 FY 2023 FY 2024 FY 2025 FY 2026 FY 2027 FY 2028 **Event Name** 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 3 4 2 3 4 DCO-Tools Suite v6 DCO Tools Suite v6 DCO-Tools Suite v7 DCO Tools Suite vi DCO-Tools Suite v8 DCO Tools Suite vi DCO-User Activity Monitor POR Contract DCO User Activity Monitoring POR Contract DCO-User Activity Monitoring - Behavorial Analysis DCO User Activity Monitoring - Behavorial Analysis DCO-User Activity Monitoring - Integrate with BDP DCO User Activity Monitoring - Integrate with BDP DCO-User Activity Monitoring - Total NET Employment DCO User Activity Monitoring - Total NET Employment DCO-User Activity Monitoring Capability - Full Operation... DCO User Activity Monitoring - FOC DCO-Forensics and Malware -Initial Operating Capability alware - IOC DCO-Forensics and Malware - Ida Pro Procurement 1 (BY) DCO-Forensics and Malware - Sandbox Solution DCO Forensics and Malware - Sandbox Solution DCO-Forensics and Malware - Ida Pro Procurement 1 (OY1) DCO Forensics and Malware DCO-Forensics and Malware - Full Operating Capability DCO Forensics and Malware - FOC

Exhibit R-4, RDT&E Schedule Profile: PB 2024 Army

R-1 Program Element (Number/Name)

Project (Number/Name)

Appropriation/Budget Activity 2040 / 8

PE 0608041A I Defensive CYBER - Softwa re Prototype Development

CD1 I Defensive Cyber - Software Prototype

Date: March 2023

Devel

FY 2022 FY 2023 FY 2025 FY 2026 FY 2027 FY 2024 FY 2028 **Event Name** 2 3 4 1 2 3 4 3 4 1 2 3 4 1 3 4 2 DCO-Forensics and Malware - Ida Pro Procurement 1 (OY2) DCO Forensics and Malware - Ida Pro Procurement 1 (OY2) DCO-Forensics and Malware - Ida Pro Procurement 2 (BY) DCO Forensics and Malware - Ida Pro Procurement 2 (BY) DCO-Forensics and Malware - Ida Pro Procurement 2 (OY1) DCO Forensics and Malware - Ida Pro Procurement 2 (OY1) DCO-Forensics and Malware - Encase Investigator Maintena... DCO-Forensics and Malware - Encase Investigator Maintena... DCO Forensics and Malware - Encase Investigator Maintenance (QY1) DCO-Forensics and Malware - Encase Investigator Maintena... DCO Forensics and Malware - Encase Investigator Maintenance (OY2) DCO-Forensics and Malware - Encase Investigator Maintena... DCO Forensics and Malware - Encase Investigator Maintenance (OY3) DCO-Threat Emulation POR Contract DCO Threat Emulation POR Contract DCO-Threat Emulation - Social Engineering Toolkit DCO Threat Emulation - Social Engineering Toolkit DCO-Threat Emulation - Exploit Code Generator DCO Threat Emulation - Exploit Code Generator DCO-Threat Emulation - Proprietary Interface DCO Threat Emulation - Proprietary Into DCO-Threat Emulation - Initial Operational Capability DCO Threat Emulation - IOC DCO-Threat Emulation - Full Operational Capability DCO Threat Emulation - FOC

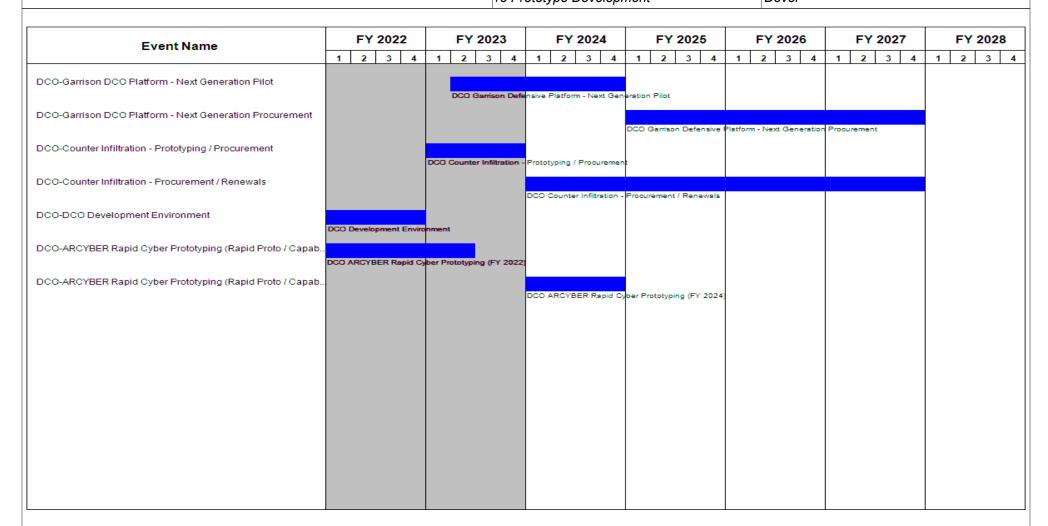
Exhibit R-4, RDT&E Schedule Profile: PB 2024 Army

Appropriation/Budget Activity

2040 / 8

R-1 Program Element (Number/Name)
PE 0608041A / Defensive CYBER - Software Prototype Development

CD1 / Defensive Cyber - Software Prototype Development



Note

Tactical DCO Infrastructure (TDI) scheduled events and milestones beginning in FY 2023 are reflected within Defensive Cyber Operations PE 0605041A, Project Code XU3.

Exhibit R-4A, RDT&E Schedule Details: PB 2024 Army			Date: March 2023
' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' '	,	CD1 / Defe	umber/Name) ensive Cyber - Software Prototype
	re Prototype Development	Devel	

Schedule Details

	Sta	Eı	nd	
Events	Quarter	Year	Quarter	Year
DCO - TDI CD 1 Delivery	4	2021	4	2021
DCO - TDI Development/Integration/Fixes - CD 2	1	2021	3	2022
DCO - TDI Testing - CD 2	3	2021	3	2022
DCO - TDI CD 2 Delivery	3	2022	3	2022
DCO - TDI Development/Integration/Fixes - CD 3	1	2022	4	2022
DCO - TDI Testing - CD 3	4	2022	4	2022
DCO - Cyber Analytics POR Contract	2	2019	1	2022
DCO-Cyber Analytics GN Expansion II	1	2021	4	2022
DCO-Cyber Analytics Capability Release 7	1	2021	1	2021
DCO-Cyber Analytics Lower Echelon Analytics Platform (LEAP) Release	1	2021	4	2022
DCO-Cyber Analytics LEAP Tactical (LTAC) Release	2	2021	4	2022
DCO-Cyber Analytics Enhancements, Testing & Deployment	2	2021	4	2024
DCO-Cyber Analytics Capability Release 8	2	2021	2	2021
DCO-Cyber Analytics Capability Release 9	3	2021	3	2021
DCO-Cyber Analytics Capability Release 10	4	2021	4	2021
DCO-Cyber Analytics Capability Release 11	1	2022	1	2022
DCO-Cyber Analytics Development Support Contract	2	2022	2	2025
DCO-Cyber Analytics Capability Release 12	2	2022	2	2022
DCO-Cyber Analytics Capability Release 13	3	2022	3	2022
DCO-Cyber Analytics Capability Release 14	4	2022	4	2022
DCO-Cyber Analytics - Full Operational Capability	4	2024	4	2024
DCO-Cyber Analytics Capability Release 15	1	2023	1	2023

Exhibit R-4A, RDT&E Schedule Details: PB 2024 Army	Date: March 2023		
1	,	- , ,	umber/Name) ensive Cyber - Software Prototype

	Sta	art	End		
Events	Quarter	Year	Quarter	Year	
DCO-Cyber Analytics GN Expansion III	1	2023	4	2027	
DCO-Cyber Analytics Capability Release 16	2	2023	2	2023	
DCO-Cyber Analytics Capability Release 17	3	2023	3	2023	
DCO-Cyber Analytics Capability Release 18	4	2023	4	2023	
DCO-Mission Planning POR Contract	1	2021	1	2023	
DCO-Mission Planning Capability Release 5	2	2021	4	2021	
DCO-Mission Planning - Initial Operational Capability	4	2022	4	2022	
DCO-Mission Planning Capability Release 6	1	2022	1	2023	
DCO-Tools Suite v2	4	2020	2	2021	
DCO-Tools Suite v3	2	2021	4	2021	
DCO-Tools Suite v4	2	2022	4	2022	
DCO-Tools Suite v5	2	2023	4	2023	
DCO-Tools Suite v6	2	2024	4	2024	
DCO-Tools Suite v7	2	2025	4	2025	
DCO-Tools Suite v8	2	2026	4	2026	
DCO-User Activity Monitor POR Contract	1	2021	3	2024	
DCO-User Activity Monitoring - Behavorial Analysis	1	2021	4	2023	
DCO-User Activity Monitoring - Integrate with BDP	2	2021	2	2024	
DCO-User Activity Monitoring - Total NET Employment	1	2024	2	2024	
DCO-User Activity Monitoring Capability - Full Operational Capability	2	2024	2	2024	
DCO-Forensics and Malware -Initial Operating Capability	2	2023	2	2023	
DCO-Forensics and Malware - Ida Pro Procurement 1 (BY)	2	2021	2	2022	
DCO-Forensics and Malware - Sandbox Solution	1	2022	4	2022	
DCO-Forensics and Malware - Ida Pro Procurement 1 (OY1)	2	2022	2	2023	
DCO-Forensics and Malware - Full Operating Capability	4	2023	4	2023	

Exhibit R-4A, RDT&E Schedule Details: PB 2024 Army		Date: March 2023	
	,	, ,	umber/Name) ensive Cyber - Software Prototype

	Sta	art	End		
Events	Quarter	Year	Quarter	Year	
DCO-Forensics and Malware - Ida Pro Procurement 1 (OY2)	2	2023	2	2024	
DCO-Forensics and Malware - Ida Pro Procurement 2 (BY)	2	2024	2	2025	
DCO-Forensics and Malware - Ida Pro Procurement 2 (OY1)	2	2025	2	2026	
DCO-Forensics and Malware - Encase Investigator Maintenance (BY)	2	2021	2	2022	
DCO-Forensics and Malware - Encase Investigator Maintenance (OY1)	2	2022	2	2023	
DCO-Forensics and Malware - Encase Investigator Maintenance (OY2)	2	2023	2	2024	
DCO-Forensics and Malware - Encase Investigator Maintenance (OY3)	2	2024	2	2025	
DCO-Threat Emulation POR Contract	1	2021	4	2025	
DCO-Threat Emulation - Social Engineering Toolkit	1	2021	4	2025	
DCO-Threat Emulation - Exploit Code Generator	3	2021	2	2022	
DCO-Threat Emulation - Proprietary Interface	1	2022	4	2022	
DCO-Threat Emulation - Initial Operational Capability	1	2022	2	2023	
DCO-Threat Emulation - Full Operational Capability	4	2024	4	2024	
DCO-Garrison DCO Platform - Next Generation Pilot	2	2023	4	2024	
DCO-Garrison DCO Platform - Next Generation Procurement	1	2025	4	2027	
DCO-Counter Infiltration - Prototyping / Procurement	1	2023	4	2023	
DCO-Counter Infiltration - Procurement / Renewals	1	2024	4	2027	
DCO-DCO Development Environment	1	2022	4	2022	
DCO-ARCYBER Rapid Cyber Prototyping (Rapid Proto / Capablity Assessments) (FY 2022)	3	2021	2	2023	
DCO-ARCYBER Rapid Cyber Prototyping (Rapid Proto / Capablity Assessments) (FY 2024)	1	2024	4	2024	

Exhibit R-2A, RDT&E Project J	xhibit R-2A, RDT&E Project Justification: PB 2024 Army										Date: March 2023			
Appropriation/Budget Activity 2040 / 8					R-1 Program Element (Number/Name) PE 0608041A / Defensive CYBER - Softwa re Prototype Development				Project (Number/Name) DD2 I Joint Cyber Warfighting Architecture Software					
COST (\$ in Millions)	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	Cost To Complete	Total Cost		
DD2: Joint Cyber Warfighting Architecture Software	-	-	8.539	-	-	-	-	-	-	-	0.000	8.539		
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-				

Note

Project DD2: Joint Cyber Warfighting Architecture Software has no requested funding in FY 2024.

A. Mission Description and Budget Item Justification

Defensive Cyber Operations (DCO) programs are key elements of the DCO Maneuver Baseline infrastructure, platform, and tools. The employment of defensive capabilities achieves the following objectives: deter, destroy and defeat cyberspace threats; gain time; economy of force; control key terrain; protect tasked critical assets and infrastructure; and develop intelligence.

FY 2023 funding was aligned from Defensive Cyber - Software Prototype Development PE 0608041A, Project Code CD1, in FY 2023 only.

Defensive Cyber Operations (DCO) consists of platform and software programs which are key elements of the DCO Maneuver Baseline infrastructure, platform, and tools. DCO supports the Army Cyber Command (ARCYBER), Information Warfare Operations Center (IWOC), FORSCOM, (5) Regional Cyber Centers (RCCs), Cyber Warfare Battalion (CWB), Multi-Domain Task Force (MDTF), Cyber Protection Brigade (CPB), and (41) Cyber Protection Teams (CPTs) in COMPO 1/2/3.

B. Accomplishments/Planned Programs (\$ in Millions)	FY 2022	FY 2023	FY 2024
Title: Defensive Cyber Operations (DCO) - Tools Suite (PEO EIS)	-	8.539	-
Description: DCO Tools Suite is a flexible and dynamic software based suite of warfighting capabilities that enables Cyber Protection Teams (CPTs), Regional Cyber Centers (RCCs), and in some cases local defenders to perform DCO and cybersecurity actions. DCO tools consists of prepositioned and tailorable software packages that are integrated and available at all echelons to support or directly cause effects through the execution of Cyber Mission Force (CMF) and cyberspace workforce tasks. They are executed or managed within a DCO platform.			
FY 2023 Plans: Prior to BA8 Pilot program, this capability would have been funded with OMA funding. FY 2023 funding was aligned from Defensive Cyber - Software Prototype Development PE 0608041A, Project Code CD1, in FY 2023 only. FY 2023 funding provides software licenses, professional services, and training.			
FY 2023 to FY 2024 Increase/Decrease Statement:			

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Exhibit R-2A, RDT&E Project Justification: PB 2024 Army			Date: March 2023
Appropriation/Budget Activity	R-1 Program Element (Number/Name)	Number/Name)	
2040 / 8	PE 0608041A I Defensive CYBER - Softwa	DD2 I Join	t Cyber Warfighting Architecture
	re Prototype Development	Software	

B. Accomplishments/Planned Programs (\$ in Millions)	FY 2022	FY 2023	FY 2024
There is no FY 2024 funding for Defensive Cyber - Software Prototype Development PE 0608041A, Project Code DD2 because			
the efforts are transferring to CYBERCOM.			
Accomplishments/Planned Programs Subto	als -	8.539	-

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

			FY 2024	FY 2024	FY 2024					Cost To	
<u>Line Item</u>	FY 2022	FY 2023	Base	<u>000</u>	<u>Total</u>	FY 2025	FY 2026	FY 2027	FY 2028	Complete	Total Cost
 0605041A: Defensive 	18.811	39.029	27.714	-	27.714	24.268	21.430	21.494	21.620	0.000	174.366
CYBER Tool Development											
 B63103: Advanced 	27.389	-	13.848	-	13.848	16.144	20.942	20.626	20.643	0.000	119.592
Cyber Tool Development											
• B66350: ARCYBER DEFENSIVE	-	18.239	0.000	-	0.000	-	-	-	_	0.000	18.239
CYBER OPERATIONS											
 B89001: Insider Threat 	-	1.796	1.502	-	1.502	1.753	1.760	1.761	1.763	0.000	10.335

Program - Unit Activity Monitoring

Remarks

RDTE PE 0605041A Project EV5 - DCO platform infrastructure, integration, and assessments.

OPA PE B63103 - DCO hardware procurement, fielding, and new equipment training for Garrison DCO Platform (GDP), Deployable Defensive Systems (DDS), and DCODE Armory.

OPA PE B66350 (FY 2023 only) - DCO hardware procurement, fielding, and new equipment training for GDP, DDS, and DCODE Armory.

OPA PE B89001 - DCO Insider Threat Program - Unit Activity Monitoring for UAM operations conducted in support of the Army's insider threat program.

D. Acquisition Strategy

The DCO Information System Initial Capabilities Document (IS ICD) was approved on 19 December 2017 by the Army Requirements Oversight Council (AROC). DCO programs are under an IT Box construct with five-year term (FY 2018-2022) which aligns with current Requirements Definition Packages (RDPs). IT Box establishes funding thresholds, by appropriation, for a program over the capability's projected lifecycle of five (5) years. FY 2018-2022 IT Box expired in 4Q FY 2022. FY 2023-2027 IT Box Revalidation in staffing for approval.

The ARB approved DDS RDP on 27 February 2018, and DCO Tools Suite on 18 May 2018. The MDA designated this as ACAT IV program. Under subsequent reviews, the MDA approved agile acquisition approach to develop and deliver pre-configured software in a series of releases and capability drops in order to deliver full functional values of the RDP that align with DCO priorities. DCO programs utilize standard and FY 2018 National Defense Authorization Act (NDAA) Section 874 agile pilot evolutionary acquisition processes (30-90 rapid acquisition approach). DCO continually delivers new technologies and capabilities as a prototype and fields updated

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Exhibit R-2A, RDT&E Project Justification: PB 2024 Army		Date: March 2023
Appropriation/Budget Activity 2040 / 8	R-1 Program Element (Number/Name) PE 0608041A I Defensive CYBER - Softwa re Prototype Development	Project (Number/Name) DD2 I Joint Cyber Warfighting Architecture Software
capabilities. DCO contract strategy utilizes multiple existing contrabased, Blanket Purchase Agreement (BPA), and Basic Ordering A), Federal Acquisition Regulation (FAR)-

PE 0608041A: Defensive CYBER - Software Prototype Dev... Army

Exhibit R-3, RDT&E Project Cost Analysis: PB 2024 Army		Date: March 2023	
Appropriation/Budget Activity	R-1 Program Element (Number/Name)	Project (N	umber/Name)
2040 / 8	PE 0608041A I Defensive CYBER - Softwa	DD2 I Joint	t Cyber Warfighting Architecture
	re Prototype Development	Software	

Product Development (\$ in Millions)		FY 2022 FY 2023		FY 2024 Base		FY 2024 OCO		FY 2024 Total							
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
DCO - Tools Suite (PEO EIS)	MIPR	GSA, FEDSIM National : Washington, DC	-	-		8.539	Mar 2023	-		-		-	0.000	8.539	-
	-	Subtotal	-	-		8.539		-		-		-	0.000	8.539	N/A
	1														Target

	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	-	-	8.539	-	-	-	0.000	8.539	N/A

Remarks

FY 2023 funding was aligned from Defensive Cyber - Software Prototype Development PE 0608041A, Project Code CD1, in FY 2023 only.

Event Name	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3
OCO - Tools Suite							
		DCO - Tools Suite					

Appropriation/Budget Activity 2040 / 8 R-1 Program Element (Number/Name) PE 0608041A / Defensive CYBER - Software Prototype Development Project (Number/Name) DD2 / Joint Cyber Warfighting Architecture Software	Exhibit R-4A, RDT&E Schedule Details: PB 2024 Army			Date: March 2023	
	Appropriation/Budget Activity	R-1 Program Element (Number/Name) Project (Num		ımber/Name)	
re Prototype Development Software	2040 / 8	PE 0608041A I Defensive CYBER - Softwa	DD2 I Join	t Cyber Warfighting Architecture	
		re Prototype Development	Software		

Schedule Details

	Start		End	
Events	Quarter	Year	Quarter	Year
DCO - Tools Suite	2	2023	4	2023