Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Air Force											Date: March 2024	
Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force* / BA 7: *Operational Systems Development*					R-1 Program Element (Number/Name) PE 0208088F / *AF Defensive Cyberspace Operations*							
COST ($ in Millions)	**Prior Years**	**FY 2023**	**FY 2024**	**FY 2025 Base**	**FY 2025 OCO**	**FY 2025 Total**	**FY 2026**	**FY 2027**	**FY 2028**	**FY 2029**	**Cost To Complete**	**Total Cost**
Total Program Element	-	16.220	113.064	113.218	0.000	113.218	131.691	147.758	172.286	175.689	Continuing	Continuing
677820: *Computer Security RDTE: Firestarter*	-	7.720	7.068	7.237	0.000	7.237	7.419	7.570	7.722	7.875	Continuing	Continuing
677821: *Cyberspace Vulnerability Assessment*	-	8.500	6.618	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	15.118
677822: *Cyber Defense Analysis*	-	0.000	0.301	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.301
677823: *AFCERT*	-	0.000	99.077	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	99.077
677824: *677824 - Integrated Defensive Cyberspace System*	-	0.000	0.000	105.981	0.000	105.981	124.272	140.188	164.564	167.814	Continuing	Continuing

A. Mission Description and Budget Item Justification

AF Defensive Cyberspace Operations (AF DCO) allows the Department of the Air Force (DAF) to keep pace with the ever-evolving threats from the operational (cyber) environment. AF DCO develops capabilities that provide the Department of the Air Force increased assurance in prosecuting air campaigns through enhanced situational awareness and cyber defense of the systems and assets required to enable the movement of forces.

AF DCO is building an integrated architecture that extends cyber defense to, and integrates data from, information systems, mission systems and control systems relevant to air campaigns. The Integrated Defensive Cyberspace System (IDCS) will unify the missions of network defense and cyber protection teams, allowing them to conduct cyber missions from the same system with shared, mission-relevant data.

IDCS safeguards Air Force Information Network (AFIN) and Department of Defense (DoD) network enclaves including their associated computer systems, software applications and sensitive operational information against unauthorized access, intrusion, data exfiltration, corruption, and/or destruction. Legacy system modernization activities have been combined into IDCS (BPAC 677824). The Firestarter effort will continue to be funded in BPAC 677820. Firestarter capabilities will be incrementally integrated to be compatible with and operate within the IDCS. IDCS continually improves its capabilities through modern software delivery practices: continuous research and development (R&D), testing, fielding, and modification based on operational feedback.

IDCS is operated by the DAF Total Force, including Active Duty (AD), Air National Guard (ANG), and Air Force Reserve Command (AFRC) Airmen. IDCS enables rapid deployment of defensive cyber sensor capabilities while disrupting bad actors from exploiting critical vulnerabilities by developing and employing both automated decision making (ADM) and human/machine teaming (HMT) with trained defensive cyber operators. IDCS supports both enterprise (fixed) and edge/mobile use cases and allows the DAF to execute the Cyberspace Vulnerability Assessment/Hunter (CVA/H), Air Force Cyber Defense (ACD), and Cyber Defense Analysis (CDA) missions.

Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Air Force	Date: March 2024
Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force* / BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 0208088F / *AF Defensive Cyberspace Operations*

IDCS addresses a critical capability gap identified by the Secretary of the Air Force (SecAF) - the lack of a synchronized, enterprise-level approach to mitigate cyberspace vulnerabilities related to mission performance and/or mission assurance. Failing to address this gap will hinder the DAF ability to project Air Power and dominate in a fight against near-peer adversaries.

IDCS integrates with, and makes its data available to, the Department of the Air Force (DAF) Data Fabric, Joint Cyberspace Warfighting Architecture (JCWA) and the Advanced Battle Management System (ABMS). IDCS provides increased visibility into health and readiness of cyberspace systems for both local and enterprise commanders.

Activities also include various Advisory and Assistance Services (A&AS) and Program Management Administration (PMA) activities to support the aforementioned development efforts.

This program element may include necessary civilian pay expenses required to manage, execute, and deliver weapon system capability. The use of such program funds would be in addition to the civilian pay expenses budgeted in program element 0605827F, 0605828F, 0605829F, 0605831F, 0605832F, 0605833F, 0605898F, 0606398F. In FY23 $0.457M was expended for civilian pay expenses in this program element, and in FY24 $4.053M is forecasted for civilian pay expenses in this program element.

In FY25, PE 0208088F, AF Defensive Cyberspace Operations, Project 677821, Cyberspace Vulnerability Assessment, Project 677822, Cyber Defense Analysis, and Project 677823, AFCERT efforts were transferred to PE 0208088F, AF Defensive Cyberspace Operations, Project 677824, Integrated Defensive Cyber System, in order to distinguish IDCS from previous efforts.

This program is in Budget Activity 7, Operational System Development because this budget activity includes development efforts to upgrade systems that have been fielded or have received approval for full rate production and anticipate production funding in the current or subsequent fiscal year.

B. Program Change Summary ($ in Millions)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
Previous President's Budget	16.809	113.064	126.271	0.000	126.271
Current President's Budget	16.220	113.064	113.218	0.000	113.218
Total Adjustments	-0.589	0.000	-13.053	0.000	-13.053
• Congressional General Reductions	0.000	0.000			
• Congressional Directed Reductions	0.000	0.000			
• Congressional Rescissions	0.000	0.000			
• Congressional Adds	0.000	0.000			
• Congressional Directed Transfers	0.000	0.000			
• Reprogrammings	0.000	0.000			
• SBIR/STTR Transfer	-0.589	0.000			
• Other Adjustments	0.000	0.000	-13.053	0.000	-13.053

Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Air Force	Date: March 2024
Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 0208088F *I AF Defensive Cyberspace Operations*

Congressional Add Details ($ in Millions, and Includes General Reductions)	FY 2023	FY 2024
Project: 677820: *Computer Security RDTE: Firestarter*		
Congressional Add: *Autonomous Satellite Cybersecurity*	7.720	0.000
Congressional Add Subtotals for Project: 677820	7.720	0.000
Congressional Add Totals for all Projects	7.720	0.000

Change Summary Explanation

In FY24, the DAF added $105.759M to develop IDCS which will defend AF networks, control systems, and mission systems against more complex and capable cyber threats from near-peer adversaries and other state actors focusing initially on INDOPACOM defense.

FY25 funding was reduced by $13.053M due to higher OSD and AF priorities.

Exhibit R-2A, RDT&E Project Justification: PB 2025 Air Force			Date: March 2024
Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 0208088F / *AF Defensive Cyberspace Operations*	Project (Number/Name) 677820 / *Computer Security RDTE: Firestarter*	

COST ($ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
677820: *Computer Security RDTE: Firestarter*	-	7.720	7.068	7.237	0.000	7.237	7.419	7.570	7.722	7.875	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The Firestarter program provides newly improved capabilities and technical transition opportunities for Cyber Defense and Information Assurance (IA) technologies and tools needed to defend Air Force Command, Control, Communications, Computer, and Intelligence (C4I) systems from cyber attacks, while ensuring recovery in the event of an attack. The emphasis of the program is directed toward defensive cyberspace capabilities; computer and network systems security; damage assessment and recovery; cyber threat recognition, attribution, and mitigation; and active response methodologies in response to evolving threats and changes to cyber environment. These areas of emphasis are realized through research and development, test and acquisition in the areas of proactive defense, defensive counter cyberspace, cyberspace intelligence, surveillance and reconnaissance & situational awareness, persistent network operations, as well as decision support, recovery, and digital forensics. Current Air Force systems, such as the AFNET NIPRNet Gateways, SIPRNet Modernization program, and Host Based Security System leverage this technology to meet their information assurance and defensive cyberspace needs/requirements.

Firestarter utilizes cyber and IA technology investments by US Cyber Command, the Defense Advanced Research Projects Agency (DARPA), the National Security Agency (NSA), Director of National Intelligence (DNI), Intelligence Advanced Research Projects Activity (IARPA), and the Department of Homeland Security (DHS), and various government research laboratories, to jump-start its development of solutions to existing Air Force cyber and IA requirements. This program supports AF Cyberspace strategic direction in support of Cyber Defense which provides capabilities to 16th AF, as AF component to US Cyber Command (USCYBERCOM), Defense Information Systems Agency (DISA), National Security Agency (NSA), and other services to ensure Global Information Grid (GIG) cyber and IA requirements are being met. Activities performed include those designed to identify, analyze, test, rapidly acquire, and integrate emerging IA and cyber technology and defensive cyberspace weapons systems and capabilities into all regions of the GIG - terrestrial, airborne, and space systems. In addition, this effort will support implementation of DoD Enterprise-wide IA & Computer Network Defense (CND) Solutions Steering Group (ESSG) solutions.

This program element may include necessary civilian pay expenses required to manage, execute, and deliver weapon system capability. The use of such program funds would be in addition to the civilian pay expenses budgeted in program element 0605827F, 0605828F, 0605829F, 0605831F, 0605832F, 0605833F, 0605898F, 0606398F. In FY23 $0.000M was expended for civilian pay expenses in this program element, and in FY24 $0.000M is forecasted for civilian pay expenses in this program element.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Title: Firestarter	0.000	7.068	7.237

Exhibit R-2A, RDT&E Project Justification: PB 2025 Air Force		Date: March 2024
Appropriation/Budget Activity 3600 / 7	**R-1 Program Element (Number/Name)** PE 0208088F / *AF Defensive Cyberspace Operations*	**Project (Number/Name)** 677820 / *Computer Security RDTE: Firestarter*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Description: To provide newly improved capabilities and technical transition opportunities for Cyber Defense and IA technologies and tools needed to defend Air Force Command, Control, Communications, Computer, and Intelligence (C4I) systems from cyber attacks, while ensuring recovery in the event of an attack. ***FY 2024 Plans:*** - Continue to perform incident response via remote analysis of end points - Continue to conduct detection, interception, and analysis of advanced malware - Continue to perform detection and eradication of stealth dormant implants - Continue to develop influence capabilities over adversary perceptions of blue cyber assets - Continue to intercept of malicious code over covert channels - Continue to enhance cyber hardening of Industrial Control Systems (ICS) and Supervisory Control and Data Acquisition (SCADA) infrastructure - Continue to research cyber defense for 5G protocol infrastructure and devices - Continue to research cyber defense of space-born assets - Continue to mature and implement Artificial Intelligence and Machine Learning (AI/ML) systems for Cyber Mission Assurance - Continue to adapt technologies in all of the above areas for joint distribution and sustainment via Iron Bank (DoD's cyber capability repository) ***FY 2025 Plans:*** - Will perform incident response via remote analysis of end points - Will conduct detection, interception, and analysis of advanced malware - Will perform detection and eradication of stealth dormant implants - Will develop influence capabilities over adversary perceptions of blue cyber assets - Will intercept of malicious code over covert channels - Will enhance cyber hardening of ICS/SCADA infrastructure - Will research cyber defense for 5G protocol infrastructure and devices - Will research cyber defense of space-born assets - Will mature and implement AI/ML systems for Cyber Mission Assurance - Will adapt technologies in all of the above areas for joint distribution and sustainment via Iron Bank (DoD's cyber capability repository) ***FY 2024 to FY 2025 Increase/Decrease Statement:*** The increase from FY24 to FY25 is an inflationary adjustment.			
Accomplishments/Planned Programs Subtotals	0.000	7.068	7.237

Exhibit R-2A, RDT&E Project Justification: PB 2025 Air Force		Date: March 2024
Appropriation/Budget Activity 3600 / 7	**R-1 Program Element (Number/Name)** PE 0208088F / *AF Defensive Cyberspace Operations*	**Project (Number/Name)** 677820 / *Computer Security RDTE: Firestarter*

	FY 2023	FY 2024
Congressional Add: Autonomous Satellite Cybersecurity	7.720	0.000
FY 2023 Accomplishments: - Continue to research and develop new methods of autonomous cybersecurity and the applications of such onto satellites for the purpose of securing missions from cyber-attack in the space domain		
FY 2024 Plans: N/A		
Congressional Adds Subtotals	7.720	0.000

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

Firestarter conducts late stage Science and Technology (S&T) for tech demo and tech transition to warfighter employment. All contracts within this project are awarded using full and open competition and utilize evolutionary capability and incremental development. Where appropriate, collaborative efforts are conducted with services and agencies within the DAF to result in more robust and cost effective solutions. Contracting activities are primarily done through other agencies when deemed more advantageous. All aspects of the Firestarter project are managed by the Air Force Research Laboratory.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Air Force		Date: March 2024
Appropriation/Budget Activity 3600 / 7	**R-1 Program Element (Number/Name)** PE 0208088F / *AF Defensive Cyberspace Operations*	**Project (Number/Name)** 677820 / *Computer Security RDTE: Firestarter*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Firestarter Development	C/CPFF	Various : Various	-	0.000	Jan 2023	4.650	Jan 2024	4.766	Jan 2025	-		4.766	Continuing	Continuing	9.401
Firestarter Integration	C/CPFF	Various : Various	-	0.000	Jan 2023	1.318	Jan 2024	1.347	Jan 2025	-		1.347	Continuing	Continuing	2.665
Congressional Add: Autonomous Satellite Cybersecurity	C/Various	Various : Various	-	7.720	Mar 2023	-		-		-		-	Continuing	Continuing	8.000
		Subtotal	-	7.720		5.968		6.113		-		6.113	Continuing	Continuing	N/A

Remarks

Multiple contractors and multiple universities reflect on-going efforts with over a dozen contractors and universities. Each has a different contract date depending on when that particular contract was awarded.

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Firestarter Testing	C/CPFF	Various : Various	-	0.000	Jan 2023	1.100	Jan 2024	1.124	Jan 2025	-		1.124	Continuing	Continuing	2.224
		Subtotal	-	0.000		1.100		1.124		-		1.124	Continuing	Continuing	N/A

	Prior Years	FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	-	7.720		7.068		7.237		-		7.237	Continuing	Continuing	N/A

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2025 Air Force		Date: March 2024
Appropriation/Budget Activity 3600 / 7	**R-1 Program Element (Number/Name)** PE 0208088F / *AF Defensive Cyberspace Operations*	**Project (Number/Name)** 677820 / *Computer Security RDTE: Firestarter*

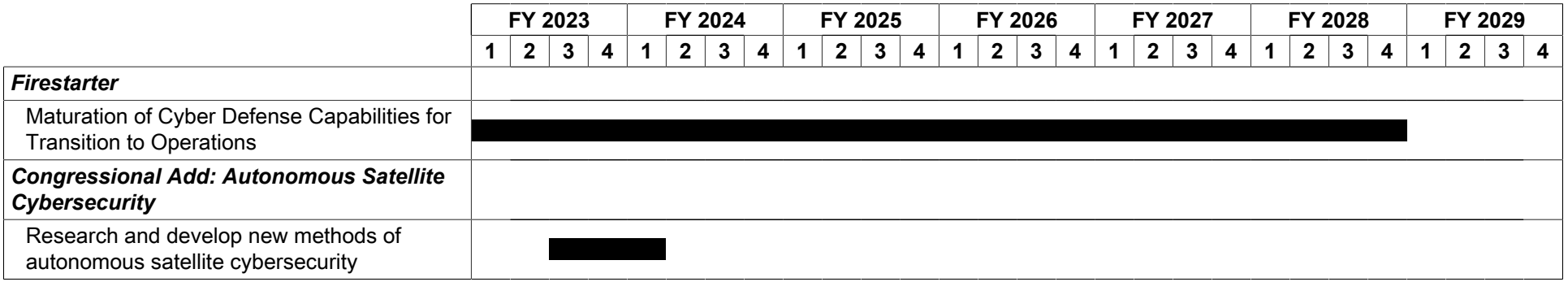

Exhibit R-4A, RDT&E Schedule Details: PB 2025 Air Force		Date: March 2024
Appropriation/Budget Activity 3600 / 7	**R-1 Program Element (Number/Name)** PE 0208088F / *AF Defensive Cyberspace Operations*	**Project (Number/Name)** 677820 / *Computer Security RDTE: Firestarter*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Firestarter				
Maturation of Cyber Defense Capabilities for Transition to Operations	1	2023	4	2028
Congressional Add: Autonomous Satellite Cybersecurity				
Research and develop new methods of autonomous satellite cybersecurity	3	2023	1	2024

Exhibit R-2A, RDT&E Project Justification: PB 2025 Air Force			Date: March 2024
Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 0208088F / *AF Defensive Cyberspace Operations*	Project (Number/Name) 677821 / *Cyberspace Vulnerability Assessment*	

COST ($ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
677821: *Cyberspace Vulnerability Assessment*	-	8.500	6.618	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	15.118
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Beginning in FY25, continuation of this work is described in BPAC 677824. Funding in this BPAC contributes to the development of software and related activities in support of the creation of an Integrated Defensive Cyberspace system.

The Cyberspace Vulnerability Assessment/Hunter (CVA/H) weapon system provides Air Force Cyber Command (AFCYBER) and Combatant Commanders additional mobile precision in addition to currently fielded protection capabilities to identify, pursue, and mitigate cyberspace threats. The CVA/H weapon system performs defensive sorties world-wide via remote or on-site access. CVA/H executes Hunter missions on AF and DoD networks & systems. Hunter operations characterize and then eliminate threats for the purpose of mission assurance. The Hunter mission focuses on the capability to find, fix, track, target, engage, and assess (F2T2EA) the advanced persistent threat (APT). This effort funds development efforts to enhance command and control situational awareness and to expand the capability of the current weapon system to meet scope and scale of the USCYBERCOM directed Cyber Protection Teams and AF Mission Defense Teams.

Activity in this BPAC also supports development of enhancements to legacy DCO weapon systems, as needed, to support current operations and facilitate the transition of legacy capabilities to the IDCS described more fully in BPAC 677824.

This program element may include necessary civilian pay expenses required to manage, execute, and deliver weapon system capability. The use of such programs funds would be in addition to the civilian pay expenses budgeted in program element 0605827F, 0605828F, 0605829F, 0605831F, 0605832F, 0605833F, 0605898F, 0606398F. In FY23 $0.457M was expended for civilian pay expenses in this BPAC, and in FY24 $0.000M is forecasted for civilian pay expenses in this BPAC.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Title: CVA/H Development	8.500	6.618	0.000
Description: Development and integration of solutions supporting defensive cyber modernization in the area of DCO capabilities and technologies to meet capability gaps required by Mission Defense Teams.			
FY 2024 Plans: - Continue to develop modifications to the CVA/H weapon system based on AF operational cyber needs.			
FY 2025 Plans: N/A			
FY 2024 to FY 2025 Increase/Decrease Statement:			

Exhibit R-2A, RDT&E Project Justification: PB 2025 Air Force		Date: March 2024
Appropriation/Budget Activity 3600 / 7	**R-1 Program Element (Number/Name)** PE 0208088F / *AF Defensive Cyberspace Operations*	**Project (Number/Name)** 677821 / *Cyberspace Vulnerability Assessment*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
In FY25, PE 0208088F, AF Defensive Cyberspace Operations, Project 677821, Cyberspace Vulnerability Assessment, Project 677822, Cyber Defense Analysis, and Project 677823, AFCERT efforts were transferred to PE 0208088F, AF Defensive Cyberspace Operations, Project 677824, Integrated Defensive Cyber System, in order to distinguish IDCS from previous efforts.			
Accomplishments/Planned Programs Subtotals	8.500	6.618	0.000

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
• OPAF 03 834320: *C3 Countermeasures*	82.029	89.455	43.780	-	43.780	26.420	37.510	57.782	57.213	Continuing	Continuing

Remarks

D. Acquisition Strategy

Funding in BPAC 677821 contributes to the IDCS and as such is accomplished under the same Acquisition Strategy described in BPAC 677824.

Acquisition Strategy for the IDCS employs the Software Acquisition Pathway defined in DoDI 5000.87 and multiple software development providers. IDCS will be highly integrated with Joint Cyber Warfighting Architecture (JCWA) and Command, Control, Communications and Battle Management (C3BM)/Advanced Battle Management System (ABMS), leveraging this work to complement DAF investments in Defensive Cyber. IDCS will deliver new software capabilities through a continuous integration, continuous delivery pipeline built on enterprise offerings. IDCS will employ an agile development process to deliver incremental capabilities at the speed required to counter the emerging and persistent cyber threat. IDCS will integrate commercial off the shelf, Government off the shelf and open source software capabilities as appropriate to achieve an effective, efficient mission capability.

IDCS will procure software development capacity through various existing and new contractual vehicles. Contract sources include Government-Wide Acquisition Contracts (GWACs) such as Alliant, Encore II, NASA Solutions for Enterprise-Wide Procurement IV (SEWP IV), and General Services Administration (GSA) Federal Supply Schedules. IDCS will also use Small Business Innovative Research (SBIR) and Air Force Research Laboratory (AFRL) contracts, Federally Funded Research and Development Contractors (FFRDCs), Advisory and Assistance Services (A&AS) contracts, and support from Test and Evaluation Enterprises. Wherever possible IDCS will use competitive contracts and task orders to ensure cost efficiency and industry engagement.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Air Force			Date: March 2024
Appropriation/Budget Activity 3600 / 7	**R-1 Program Element (Number/Name)** PE 0208088F / *AF Defensive Cyberspace Operations*	**Project (Number/Name)** 677821 / *Cyberspace Vulnerability Assessment*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
CVA/H Development	Various	Various : Various	-	6.447	Jan 2023	6.618	Jan 2024	-		-		-	0.000	13.065	13.044
		Subtotal	-	6.447		6.618		-		-		-	0.000	13.065	N/A

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Test Support	MIPR	47 Test Squadron : Lackland AFB, TX	-	1.596	Oct 2022	-		-		-		-	0.000	1.596	1.596
		Subtotal	-	1.596		-		-		-		-	0.000	1.596	N/A

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
CVA/H Direct Cite Authority Civilian Pay	TBD	USAF : Hanscom AFB, MA	-	0.457	Oct 2022	-		-		-		-	0.000	0.457	0.787
		Subtotal	-	0.457		-		-		-		-	0.000	0.457	N/A

	Prior Years	FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	-	8.500		6.618		-		-		-	0.000	15.118	N/A

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2025 Air Force		Date: March 2024
Appropriation/Budget Activity 3600 / 7	**R-1 Program Element (Number/Name)** PE 0208088F / *AF Defensive Cyberspace Operations*	**Project (Number/Name)** 677821 / *Cyberspace Vulnerability Assessment*

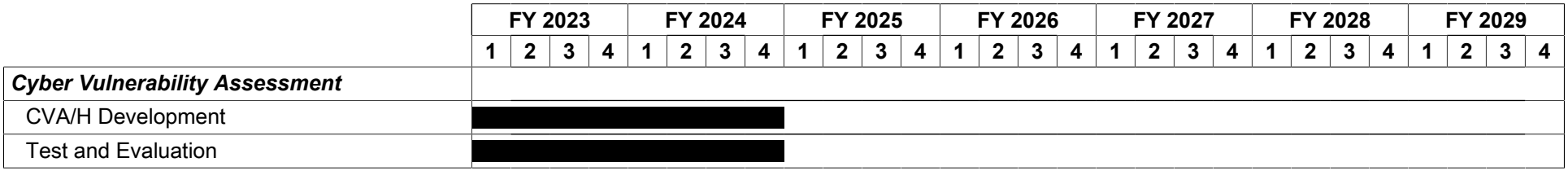

Exhibit R-4A, RDT&E Schedule Details: PB 2025 Air Force		Date: March 2024
Appropriation/Budget Activity 3600 / 7	**R-1 Program Element (Number/Name)** PE 0208088F / *AF Defensive Cyberspace Operations*	**Project (Number/Name)** 677821 / *Cyberspace Vulnerability Assessment*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Cyber Vulnerability Assessment				
CVA/H Development	1	2023	4	2024
Test and Evaluation	1	2023	4	2024

Exhibit R-2A, RDT&E Project Justification: PB 2025 Air Force			Date: March 2024
Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 0208088F / *AF Defensive Cyberspace Operations*	Project (Number/Name) 677822 / *Cyber Defense Analysis*	

COST ($ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
677822: *Cyber Defense Analysis*	-	0.000	0.301	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.301
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Beginning in FY25, continuation of this work is described in BPAC 677824. Funding in this BPAC contributes to the development of software and related activities in support of the creation of an Integrated Defensive Cyberspace system.

The Cyberspace Defense Analysis (CDA) weapon system conducts Defensive Cyberspace Operations (DCO) during peace time and contingency operations and network defense by monitoring, collecting, analyzing, and reporting sensitive information transiting or residing on the AFNet. CDA assessments of non-secure telecommunications determine type and amount of sensitive and/or classified information that may have been disclosed to our adversaries and encompasses several mission subsets, including: Telephony Communications, Radio Frequency (RF) Communications, Email Communications, Internet based Capabilities (IbC), and Cyber Operations Risk Assessment (CORA). The CDA weapon system protects the AF's critical information such as Personnally Identifiable Information (PII), OPSEC, and other sensitive information through passive monitoring and active Data Loss Protection (DLP). CDA shows its true capability in the force protection realm, OPSEC, DLP, etc. and helps ensure our adversaries are not provided early warning of our plans, capabilities, or limitations.

Without proper funding the CDA Operators will not be able to determine potential impacts and operational adjustments resulting from information disclosures or identify compromised information from network intrusions. There will be a decreased assurance of network defense and an increase in the amount of lost PII, OPSEC, and other sensitive information. Continuing funding is essential in developing new capabilities to combat the rapidly evolving cyber threats.

This program element may include necessary civilian pay expenses required to manage, execute, and deliver weapon system capability. The use of such programs funds would be in addition to the civilian pay expenses budgeted in program element 0605827F, 0605828F, 0605829F, 0605831F, 0605832F, 0605833F, 0605898F, 0606398F. In FY23 $0.000M was expended for civilian pay expenses in this program element, and in FY24 $0.000M is forecasted for civilian pay expenses in this program element.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Title: Cyber Defense Analysis	0.000	0.301	0.000
Description: Engineering support to conduct Cyberspace Defense Analysis (CDA) assessment of non-secure telecommunications during peace time and contingency operations.			
FY 2024 Plans: - Continue to support integration of CDA capabilities into IDCS			
FY 2025 Plans:			

Exhibit R-2A, RDT&E Project Justification: PB 2025 Air Force		Date: March 2024
Appropriation/Budget Activity 3600 / 7	**R-1 Program Element (Number/Name)** PE 0208088F / *AF Defensive Cyberspace Operations*	**Project (Number/Name)** 677822 / *Cyber Defense Analysis*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
N/A ***FY 2024 to FY 2025 Increase/Decrease Statement:*** In FY25, PE 0208088F, AF Defensive Cyberspace Operations, Project 677821, Cyberspace Vulnerability Assessment, Project 677822, Cyber Defense Analysis, and Project 677823, AFCERT efforts were transferred to PE 0208088F, AF Defensive Cyberspace Operations, Project 677824, Integrated Defensive Cyber System, in order to distinguish IDCS from previous efforts.			
Accomplishments/Planned Programs Subtotals	0.000	0.301	0.000

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
• OPAF 03 0208088F: *AF Defensive Cyberspace Operations*	82.029	89.455	43.780	-	43.780	26.420	37.510	57.782	57.213	Continuing	Continuing

Remarks

D. Acquisition Strategy

Funding in BPAC 677821 contributes to the IDCS and as such is accomplished under the same Acquisition Strategy described in BPAC 677824.

Acquisition Strategy for the IDCS employs the Software Acquisition Pathway defined in DoDI 5000.87 and multiple software development providers. IDCS will be highly integrated with JCWA and C3BM/ABMS, leveraging this work to complement DAF investments in Defensive Cyber. IDCS will deliver new software capabilities through a continuous integration, continuous delivery pipeline built on enterprise offerings. IDCS will employ an agile development process to deliver incremental capabilities at the speed required to counter the emerging and persistent cyber threat. IDCS will integrate commercial off the shelf, Government off the shelf and open source software capabilities as appropriate to achieve an effective, efficient mission capability.

IDCS will procure software development capacity through various existing and new contractual vehicles. Contract sources include Government-Wide Acquisition Contracts (GWACs) such as Alliant, Encore II, NASA Solutions for Enterprise-Wide Procurement IV (SEWP IV), and General Services Administration (GSA) Federal Supply Schedules. IDCS will also use Small Business Innovative Research (SBIR) and Air Force Research Laboratory (AFRL) contracts, FFRDCs, Advisory and Assistance Services (A&AS) contracts, and support from Test and Evaluation Enterprises. Wherever possible IDCS will use competitive contracts and task orders to ensure cost efficiency and industry engagement.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Air Force		Date: March 2024
Appropriation/Budget Activity 3600 / 7	**R-1 Program Element (Number/Name)** PE 0208088F / *AF Defensive Cyberspace Operations*	**Project (Number/Name)** 677822 / *Cyber Defense Analysis*

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
CDA Program Support Costs	Various	AFLCMC/PZ : Hanscom, MA	-	0.000	Jan 2023	0.301	Jan 2024	0.000		-		0.000	Continuing	Continuing	0.301
		Subtotal	-	0.000		0.301		0.000		-		0.000	Continuing	Continuing	N/A

Remarks

Provides program office subject matter expertise, engineering continuity, technical maturation and expertise, and access to an extensive professional network for future capabilities.

	Prior Years	FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	-	0.000		0.301		0.000		-		0.000	Continuing	Continuing	N/A

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2025 Air Force		Date: March 2024
Appropriation/Budget Activity 3600 / 7	**R-1 Program Element (Number/Name)** PE 0208088F / *AF Defensive Cyberspace Operations*	**Project (Number/Name)** 677822 / *Cyber Defense Analysis*

	FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029			
	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	4
Cyber Defense Analysis																												
Cyber Defense Analysis Program Support Costs	[redacted]																											

Exhibit R-4A, RDT&E Schedule Details: PB 2025 Air Force		Date: March 2024
Appropriation/Budget Activity 3600 / 7	**R-1 Program Element (Number/Name)** PE 0208088F / *AF Defensive Cyberspace Operations*	**Project (Number/Name)** 677822 / *Cyber Defense Analysis*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Cyber Defense Analysis				
Cyber Defense Analysis Program Support Costs	1	2023	4	2024

Exhibit R-2A, RDT&E Project Justification: PB 2025 Air Force										Date: March 2024		
Appropriation/Budget Activity 3600 / 7					R-1 Program Element (Number/Name) PE 0208088F / *AF Defensive Cyberspace Operations*				Project (Number/Name) 677823 / *AFCERT*			
COST ($ in Millions)	**Prior Years**	**FY 2023**	**FY 2024**	**FY 2025 Base**	**FY 2025 OCO**	**FY 2025 Total**	**FY 2026**	**FY 2027**	**FY 2028**	**FY 2029**	**Cost To Complete**	**Total Cost**
677823: *AFCERT*	-	0.000	99.077	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	99.077
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Beginning in FY25, continuation of this work is described in BPAC 677824. Funding in this BPAC contributes to the development of software and related activities in support of the creation of an Integrated Defensive Cyberspace system (IDCS).

IDCS generates defensive cyberspace capabilities supported by active response methodologies as the main focus of our efforts (we utilize NIST-standardized actions, such as protecting and securing computer and network systems, detecting and assessing damage, defending while recognizing / attributing / mitigating cyber threats, and recovering systems and data) as the DAF seeks to keep pace with ever-evolving threats and changes to our operational [cyber] environment.

IDCS benefits the DAF Total Force, including Active Duty (AD), Air National Guard (ANG), and Air Force Reserve Command (AFRC) Airmen by enabling rapid deployment of defensive cyber sensor capabilities while disrupting bad actors from exploiting critical vulnerabilities upon the initial discovery of adversarial action at the tactical edge, by utilizing both automated decision making (ADM) and human/machine teaming (HMT) with trained defensive cyber operators. IDCS will equip DAF operational units (predominantly 16th Air Force (AFCYBER), 688th Cyber Security Service Provider (CSSP), and 67th Cyber Wing, Air Force Cyber Protection Teams (CPTs), in addition to Mission Defense Teams (MDTs) and network defenders) with capabilities required to sensor, monitor and protect DAF and ad-hoc mission networks (including networks utilized by AFSOC - Air Force Special Operations Command), Industrial Control Systems (ICS), and Weapon Systems. IDCS supports both enterprise (fixed) and edge/mobile use cases.

IDCS exists to sustain two major components: (1) common sensor platform, known as VOLTRN+; (2) situational awareness platform, known as ELICSAR, acting as DAF's version of a Big Data Platform (BDP). IDCS components are comprised of 3 main parts: (A) Strategic Data Platform; (B) Strategic and Tactical Analytics; (C) Joint Situational Awareness Applications. Working together, IDCS enables AF DCO to host, integrate, and feed defensive-cyber-related data, which informs both operational and strategic analysis, contributing to enhanced situational awareness for senior leaders.

IDCS addresses the lack of a synchronized, enterprise-level approach to mitigate cyberspace vulnerabilities related to mission performance and/or mission assurance. Failing to address capability gaps will hinder DAF's ability to project Air Power and dominate in a fight against near-peer adversaries. The increased request to RDT&E funding for this portfolio reflects the threats (identified with SecAF support) to Air Force Defensive Cyber Operations, specifically requiring sensor data and enhanced situational awareness to mobilize, deploy, and sustain forces.

IDCS develops, sources, sustains, and provides common non-proprietary modular hardware (including commercial-off-the-shelf / COTS solutions), hosting, an edge cloud-compute defensive cyber platform (with options for both standalone or cloud-connected software), and cloud-based containerized software needed to execute the Cyberspace Vulnerability Assessment/Hunter (CVA/H), Air Force Cyber Defense (ACD), and Cyber Defense Analysis (CDA) missions.

Exhibit R-2A, RDT&E Project Justification: PB 2025 Air Force		Date: March 2024
Appropriation/Budget Activity 3600 / 7	**R-1 Program Element (Number/Name)** PE 0208088F / *AF Defensive Cyberspace Operations*	**Project (Number/Name)** 677823 / *AFCERT*

IDCS makes its cyber data available to the Department of the Air Force (DAF) Data Fabric (including JCWA / ABMS), providing increased visibility into health and readiness of cyberspace systems for both local and enterprise leaders. IDCS aggregates and analyzes cyberspace data with the ability to enhance strategic assessments through the use of Artificial Intelligence and Machine Learning, along with providing a comprehensive dashboard and reporting structure, which assists DCO operators in detecting and defeating Advanced Persistent Threats (APTs).

Increased funding for IDCS development and sustainment is required to enable DAF's Defensive Cyber Operations to meet the urgent need to deploy modernized, interconnected cyber defenses across the entire Air Force, including the Pacific theater to deter near-peer aggression. IDCS contributes to successful sortie generation (getting our planes off the ground and keeping them in the fight) while ensuring the integrity and global dominance of US Air Power.

IDCS will be integrated with and leverage developmental activity from across the DoD including USCYBERCOM's Joint Cyber Warfighting Architecture and the Department of the AF's Command, Control, Communications and Battle Management (C3BM) (formerly known as ABMS).

Activities also include various Advisory and Assistance Services (A&AS) and Program Management Administration (PMA) activities to support the aforementioned development efforts.

This program element may include necessary civilian pay expenses required to manage, execute, and deliver weapon system capability. The use of such program funds would be in addition to the civilian pay expenses budgeted in program element 0605827F, 0605828F, 0605829F, 0605831F, 0605832F, 0605833F, 0605898F, 0606398F. In FY23 $0.000M was expended for civilian pay expenses in this program element, and in FY24 $4.053M is forecasted for civilian pay expenses in this program element.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Title: Integrated Defensive Cyberspace System (IDCS) Development	0.000	99.077	0.000
Description: In FY24 only, BPAC 677823, formerly used for AFCERT and ACD, was used to describe the IDCS that subsumes the missions of AFCERT, CVA/H and CDA. This activity also includes cloud-based big data capabilities and associated research and development to apply machine learning to cyberspace defenses. The DAF will develop a common sensor platform which relies upon a modern containerized software-based system, known as an edge cloud compute platform, for IDCS. IDCS will be deployable to physical, virtual and cloud-based hosts and will provide for interconnectivity, management and data processing across the data fabric. IDCS will be developed to include 3 components: (1) Strategic Data Platform (to host, integrate, and feed data); (2) Strategic and Tactical Defensive Cyber Analysis Tools; (3) Joint Situational Awareness Applications. The physical domain will leverage modular commercial hardware - procured with Other Procurement Air Force (OPAF) funding in 0208088F -- with processing power tailored to the data throughput and speed requirements present at each AF base across both fixed (enterprise) and mobile configurations. The architecture will include data transport to Big Data Platform (BDP) capabilities (such as ELICSAR) present among the Enterprise and at the tactical edge. IDCS include building and placing sensors across the enterprise to enhance situational awareness through the BDP for senior leaders.			

Exhibit R-2A, RDT&E Project Justification: PB 2025 Air Force		Date: March 2024
Appropriation/Budget Activity 3600 / 7	**R-1 Program Element (Number/Name)** PE 0208088F / *AF Defensive Cyberspace Operations*	**Project (Number/Name)** 677823 / *AFCERT*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Development activities include data processing to take advantage of additional data made available by the IDCS. IDCS includes the Air Force's Big Data Platform, Enterprise Logging Ingest & Cyber Situational Awareness Refinery (ELICSAR), which is federated with, and leverages the technical baseline of the Unified Platform program. IDCS utilizes DoD Platform One's Continuous Integration/Continuous Delivery (CI/CD) technology to leverage a reciprocal continuous Authority to Operate (cATO), which is essential to deployment of infrastructure as code, which keeps our IDCS system updated at the speed of relevance. IDCS will employ, over time, data analysis powered by advances in Machine Learning and Artificial Intelligence. ***FY 2024 Plans:*** - Continue to develop the software baseline for the IDCS architecture which will integrate and leverage Open-Source Software, Government Off the Shelf (GOTS) and Commercial Off the Shelf (COTS) software. - Continue to participate in a PACAF Operational Pilot to demonstrate prototyped capability - Continue to conduct test and evaluation including extensive, ongoing cyber security and penetration testing - Continue to refine digital engineering processes to attain and maintain both internal and external alignment and integration. - Continue to refine CI/CD deployment processes, infrastructure as code, documentation, and tools to enable continuous delivery - Continue to improve risk management for IDCS program and configuration management, including generation of attestations for software development pathways, complying with software bills of material (SBOM) mandates - Continue to award and/or expand software development contracts to support the following Team structure, consistent with and aligned to components of the IDCS Architecture -- CI/CD Platform Teams - Responsible for developing and operating continuous integration / continuous delivery software delivery pipelines -- Control Plane Teams - Responsible for developing and operating the core platform operating system -- Data Plane Teams - Responsible for developing and operating cyber applications -- Data Platform, Ingest, Analytics and Display Teams for the ELICSAR BDP - Responsible for ingestion of data into the IDCS, and data analytics, displays and presentation in the form of dashboards at multiple levels: Senior Leader, Local Commander, CSSP operator. Includes early adoption of machine learning and artificial intelligence applications where appropriate. -- Persona Teams - Responsible for the development of cyber mission tools/interfaces tailored for CSSP, Hunt, Mission Defense, and other cyber missions. - Continue to support the rapid adoption of new operational capabilities through training. - Continue to develop and refine model-based representations of the IDCS to facilitate integration with USCYBERCOM JCWA and C3BM/ABMS and other related capabilities.			

Exhibit R-2A, RDT&E Project Justification: PB 2025 Air Force		Date: March 2024
Appropriation/Budget Activity 3600 / 7	**R-1 Program Element (Number/Name)** PE 0208088F / *AF Defensive Cyberspace Operations*	**Project (Number/Name)** 677823 / *AFCERT*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
- Continue to develop tools and environments required to support software development. ***FY 2025 Plans:*** N/A ***FY 2024 to FY 2025 Increase/Decrease Statement:*** In FY25, PE 0208088F, AF Defensive Cyberspace Operations, Project 677821, Cyberspace Vulnerability Assessment, Project 677822, Cyber Defense Analysis, and Project 677823, AFCERT efforts were transferred to PE 0208088F, AF Defensive Cyberspace Operations, Project 677824, Integrated Defensive Cyber System, in order to distinguish IDCS from previous efforts.			
Accomplishments/Planned Programs Subtotals	0.000	99.077	0.000

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
• OPAF 03 834320: *C3 Countermeasures*	82.029	89.455	43.780	-	43.780	26.420	37.510	57.782	57.213	Continuing	Continuing

Remarks

D. Acquisition Strategy

Funding in BPAC 677823 contributes to the IDCS and as such is accomplished under the same Acquisition Strategy described in BPAC 677824.

The acquisition strategy for the IDCS employs the Software Acquisition Pathway defined in DoDI 5000.87 and multiple software development providers. IDCS will be highly integrated with JCWA and C3BM/ABMS, leveraging this work to complement DAF investments in Defensive Cyber. IDCS will deliver new software capabilities through a continuous integration, continuous delivery pipeline built on enterprise offerings. IDCS will employ an agile development process to deliver incremental capabilities at the speed required to counter the emerging and persistent cyber threat. IDCS will integrate COTS, GOTS, and open source software capabilities as appropriate to achieve an effective mission capability.

IDCS will procure software development capacity through various existing and new contractual vehicles. Contract sources include Government-Wide Acquisition Contracts (GWACs) such as Alliant, Encore II, NASA Solutions for Enterprise-Wide Procurement IV (SEWP IV), and General Services Administration GSA) Federal Supply Schedules. IDCS will also use Small Business Innovative Research (SBIR) and Air Force Research Laboratory (AFRL) contracts, FFRDCs, Advisory and Assistance Services (A&AS) contracts, and support from Test and Evaluation Enterprises. Wherever possible IDCS will use competitive contracts and task orders to ensure cost efficiency and industry engagement.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Air Force		Date: March 2024
Appropriation/Budget Activity 3600 / 7	**R-1 Program Element (Number/Name)** PE 0208088F / *AF Defensive Cyberspace Operations*	**Project (Number/Name)** 677823 / *AFCERT*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
IDCS: Software Development - CI/CD Platform	TBD	Not specified. : TBD	-	-		8.400	Jan 2024	-		-		-	0.000	8.400	8.400
IDCS: Software Development - Control Plane	TBD	Not specified. : TBD	-	-		8.400	Jan 2024	-		-		-	0.000	8.400	8.400
IDCS: Software Development - Data Plane	TBD	Not specified. : TBD	-	-		8.400	Jan 2024	-		-		-	0.000	8.400	8.400
IDCS: Software Development - Data Platform, Ingest, Analytics, and Display (ELICSAR BDP)	TBD	Not specified. : TBD	-	-		26.489	Jan 2024	-		-		-	0.000	26.489	26.489
IDCS: Software Development - Persona	TBD	Not specified. : TBD	-	-		22.200	Jan 2024	-		-		-	0.000	22.200	22.200
		Subtotal	-	-		73.889		-		-		-	0.000	73.889	N/A

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
IDCS: Data Science	TBD	Not specified. : TBD	-	-		2.000	Jan 2024	-		-		-	0.000	2.000	2.000
IDCS: Early Continuous Operator Training Support	TBD	Not specified. : TBD	-	-		2.619	Jan 2024	-		-		-	0.000	2.619	2.619
IDCS: Digital Engineering	TBD	Not specified. : TBD	-	-		2.000	Jan 2024	-		-		-	0.000	2.000	2.000
		Subtotal	-	-		6.619		-		-		-	0.000	6.619	N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Air Force		Date: March 2024
Appropriation/Budget Activity 3600 / 7	**R-1 Program Element (Number/Name)** PE 0208088F / *AF Defensive Cyberspace Operations*	**Project (Number/Name)** 677823 / *AFCERT*

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
IDCS: 47th Cyber Test Sq	MIPR	47th Cyber Test Sq : Lackland AFB, TX	-	-		2.356	Oct 2023	-		-		-	0.000	2.356	2.356
IDCS: 48th Test Support Sq	MIPR	48th Test Support Sq : Eglin AFB, FL	-	-		1.649	Oct 2023	-		-		-	0.000	1.649	1.649
		Subtotal	-	-		4.005		-		-		-	0.000	4.005	N/A

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
IDCS: Program SupportCosts (PSC)	Various	CCSD : Lackland AFB, TX	-	-		10.511	Apr 2024	-		-		-	0.000	10.511	10.511
IDCS: Direct Cite Authority Civilian Pay	Various	AFLCMC/HN : Lackland AFB, TX	-	-		4.053	Oct 2023	-		-		-	0.000	4.053	4.053
		Subtotal	-	-		14.564		-		-		-	0.000	14.564	N/A

Remarks

In FY25, IDCS efforts were transferred to PE 0208088F, AF Defensive Cyberspace Systems, BPAC 677824 Integrated Defensive Cyberspace System.

	Prior Years	FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	-	-		99.077		-		-		-	0.000	99.077	N/A

Remarks

In FY25, IDCS was transferred to PE 0208088F, AF Defensive Cyberspace Operations, BPAC 677824, IDCS.

Exhibit R-4, RDT&E Schedule Profile: PB 2025 Air Force		Date: March 2024
Appropriation/Budget Activity 3600 / 7	**R-1 Program Element (Number/Name)** PE 0208088F / *AF Defensive Cyberspace Operations*	**Project (Number/Name)** 677823 / *AFCERT*

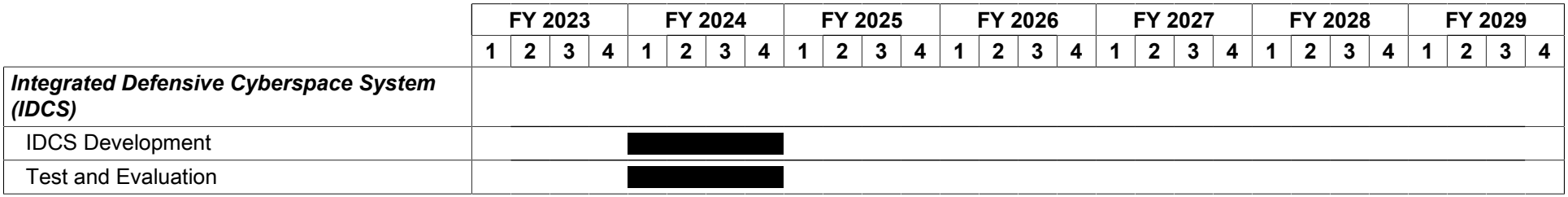

Exhibit R-4A, RDT&E Schedule Details: PB 2025 Air Force		Date: March 2024
Appropriation/Budget Activity 3600 / 7	**R-1 Program Element (Number/Name)** PE 0208088F / *AF Defensive Cyberspace Operations*	**Project (Number/Name)** 677823 / *AFCERT*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Integrated Defensive Cyberspace System (IDCS)				
IDCS Development	1	2024	4	2024
Test and Evaluation	1	2024	4	2024

Exhibit R-2A, RDT&E Project Justification: PB 2025 Air Force										Date: March 2024		
Appropriation/Budget Activity 3600 / 7					R-1 Program Element (Number/Name) PE 0208088F / *AF Defensive Cyberspace Operations*				Project (Number/Name) 677824 / *677824 - Integrated Defensive Cyberspace System*			
COST ($ in Millions)	**Prior Years**	**FY 2023**	**FY 2024**	**FY 2025 Base**	**FY 2025 OCO**	**FY 2025 Total**	**FY 2026**	**FY 2027**	**FY 2028**	**FY 2029**	**Cost To Complete**	**Total Cost**
677824: *677824 - Integrated Defensive Cyberspace System*	-	0.000	0.000	105.981	0.000	105.981	124.272	140.188	164.564	167.814	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

IDCS generates defensive cyberspace capabilities supported by active response methodologies as the main focus of our efforts (we utilize NIST-standardized actions, such as protecting and securing computer and network systems, detecting and assessing damage, defending while recognizing / attributing / mitigating cyber threats, and recovering systems and data) as the DAF seeks to keep pace with ever-evolving threats and changes to the operational cyber environment.

IDCS benefits the DAF Total Force, including Active Duty (AD), Air National Guard (ANG), and Air Force Reserve Command (AFRC) Airmen by enabling rapid deployment of defensive cyber sensor capabilities while disrupting bad actors from exploiting critical vulnerabilities upon the initial discovery of adversarial action at the tactical edge, by utilizing both automated decision making (ADM) and human/machine teaming (HMT) with trained defensive cyber operators. IDCS will equip DAF operational units (predominantly 16th Air Force (AFCYBER), 688th Cyber Security Service Provider (CSSP), and 67th Cyber Wing, Air Force Cyber Protection Teams (CPTs), in addition to Mission Defense Teams (MDTs) and network defenders) with capabilities required to sensor, monitor and protect DAF and ad-hoc mission networks (including networks utilized by AFSOC - Air Force Special Operations Command), Industrial Control Systems (ICS), and Weapon Systems. IDCS supports both enterprise (fixed) and edge/mobile use cases.

IDCS exists to sustain two major components: (1) common sensor platform, known as VOLTRN+; (2) situational awareness platform, known as ELICSAR, acting as DAF's version of a Big Data Platform (BDP). IDCS components are comprised of 3 main parts: (A) Strategic Data Platform; (B) Strategic and Tactical Analytics; (C) Joint Situational Awareness Applications. Working together, IDCS enables AF DCO to host, integrate, and feed defensive-cyber-related data, which informs both operational and strategic analysis, contributing to enhanced situational awareness for senior leaders.

IDCS addresses the lack of a synchronized, enterprise-level approach to mitigate cyberspace vulnerabilities related to mission performance and/or mission assurance. Failing to address capability gaps will hinder DAF's ability to project Air Power and dominate in a fight against near-peer adversaries. Our request to increase RDT&E funding for this portfolio reflects the threats (identified with SecAF support) to Air Force Defensive Cyber Operations, specifically requiring sensor data and enhanced situational awareness to mobilize, deploy, and sustain forces.

IDCS develops, sources, sustains, and provides common non-proprietary modular hardware (including commercial-off-the-shelf / COTS solutions), hosting, an edge cloud-compute defensive cyber platform (with options for both standalone or cloud-connected software), and cloud-based containerized software needed to execute the Cyberspace Vulnerability Assessment/Hunter (CVA/H), Air Force Cyber Defense (ACD), and Cyber Defense Analysis (CDA) missions.

IDCS makes its cyber data available to the Department of the Air Force (DAF) Data Fabric (including JCWA / ABMS), providing increased visibility into health and readiness of cyberspace systems for both local and enterprise leaders. IDCS aggregates and analyzes cyberspace data with the ability to enhance strategic

assessments through the use of Artificial Intelligence and Machine Learning, along with providing a comprehensive dashboard and reporting structure, which assists DCO operators in detecting and defeating Advanced Persistent Threats (APTs). IDCS will utilize visualization dashboards developed by Cyberspace Operations Systems, PE 0303089F, to enhance cyber situational awareness reporting and battle management capabilities.

Activities also include various Advisory and Assistance Services (A&AS) and Program Management Administration (PMA) activities to support the aforementioned development efforts.

This program element may include necessary civilian pay expenses required to manage, execute, and deliver weapon system capability. The use of such program funds would be in addition to the civilian pay expenses budgeted in program element 0605827F, 0605828F, 0605829F, 0605831F, 0605832F, 0605833F, 0605898F, 0606398F. In FY23 $0.000M was expended for civilian pay expenses in this program element, and in FY24 $0.000M is forecasted for civilian pay expenses in this program element.

In FY25, PE 0208088F, AF Defensive Cyberspace Operations, Project 677821, Cyberspace Vulnerability Assessment, Project 677822, Cyber Defense Analysis, and Project 677823, AFCERT efforts were transferred to PE 0208088F, AF Defensive Cyberspace Operations, Project 677824, Integrated Defensive Cyber System, in order to distinguish IDCS from previous efforts.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Title: Integrated Defensive Cyberspace System (IDCS) Development	0.000	0.000	105.981
Description: The DAF will develop a modern containerized software-based system known as IDCS. IDCS will be deployable to physical, virtual and cloud-based hosts and will provide for interconnectivity, management and data processing across the data fabric. The physical domain will leverage modular commercial hardware - procured with Other Procurement Air Force (OPAF) funding in 0208088F -- with processing power tailored to the data throughput and speed requirements present at each AF base across both fixed and mobile configurations. The architecture will include data transport to Big Data Platform capabilities present at Enterprise and at the tactical edge. Development activities include data processing to take advantage of additional data made available by the IDCS. IDCS includes the Air Force's Big Data Platform, Enterprise Logging Ingest & Cyber Situational Awareness Refinery (ELICSAR), which is federated with, and leverages the technical baseline of the Unified Platform program. IDCS leverages Platform One's Continuous Integration/Continuous Delivery (CI/CD) technology to enable continuous Authorization to Operate, essential to deploy system updates at the speed of relevance. IDCS will employ, over time, data analysis powered by advances in Machine Learning and Artificial Intelligence.			
FY 2024 Plans:			

Exhibit R-2A, RDT&E Project Justification: PB 2025 Air Force		Date: March 2024
Appropriation/Budget Activity 3600 / 7	**R-1 Program Element (Number/Name)** PE 0208088F / *AF Defensive Cyberspace Operations*	**Project (Number/Name)** 677824 / *677824 - Integrated Defensive Cyberspace System*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Executed under PE 0208088F, AF Defensive Cyberspace Operations, Project 677821, Cyberspace Vulnerability Assessment, Project 677822, Cyber Defense Analysis, and Project 677823, AFCERT in FY24. ***FY 2025 Plans:*** - Will develop the software baseline for the IDCS architecture which will integrate and leverage COTS, GOTS, and open-source software. - Will conduct test and evaluation including extensive, ongoing cyber security and penetration testing - Will refine digital engineering processes to attain and maintain both internal and external alignment and integration. - Will refine CI/CD deployment processes and tools to enable continuous delivery - Will award and/or expand software development contracts to support the following Team structure, consistent with and aligned to components of the IDCS Architecture -- CI/CD Platform Team(s) - Responsible for developing and operating continuous integration / continuous delivery software delivery pipelines -- Control Plane Team(s) - Responsible for developing and operating the core platform operating system -- Data Plane Team(s) - Responsible for developing and operating cyber applications -- Data Platform, Ingest, Analytics and Display Team(s) for the ELICSAR BDP - Responsible for ingestion of data into the IDCS, and data analytics, displays and presentation in the form of dashboards, created by Cyberspace Systems Operations, PE 0303089F at multiple levels: Senior Leader, Local Commander, Cybersecurity Service Provider (CSSP) operator. Includes early adoption of AI/ML applications where appropriate -- Persona Team(s) - Responsible for the development of cyber mission tools/interfaces tailored for CSSP, Hunt, Mission Defense, and other cyber missions - Will support the rapid adoption of new operational capabilities through training - Will develop and refine model-based representations of the IDCS to facilitate integration with USCYBERCOM JCWA and C3BM/ABMS and other related capabilities - Will develop tools and environments required to support software development ***FY 2024 to FY 2025 Increase/Decrease Statement:*** From the FY24 $105.996M combined total for Projects 677821, 677822, and Project 677823, the FY25 request of $105.981M has no significant changes.			
Accomplishments/Planned Programs Subtotals	0.000	0.000	105.981

Exhibit R-2A, RDT&E Project Justification: PB 2025 Air Force		Date: March 2024
Appropriation/Budget Activity 3600 / 7	**R-1 Program Element (Number/Name)** PE 0208088F / *AF Defensive Cyberspace Operations*	**Project (Number/Name)** 677824 / *677824 - Integrated Defensive Cyberspace System*

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
• OPAF 03 0208088F: *AF Defensive Cyberspace Operations*	82.029	89.455	43.780	-	43.780	26.420	37.510	57.782	57.213	Continuing	Continuing

Remarks

D. Acquisition Strategy

Acquisition Strategy for the IDCS is to employ the Software Acquisition Pathway (defined in DoDI 5000.87) for the overall acquisition.

IDCS entered Software Acquisition Pathway Planning Phase in Feb 2023.

Entry into the Software Acquisition Pathway Execution Phase is anticipated in early FY25.

The IDCS PMO will leverage multiple software development providers. IDCS will be highly integrated with JCWA and ABMS, leveraging this work to complement DAF investments in Defensive Cyber. IDCS will deliver new software capabilities through a continuous integration, continuous delivery pipeline built on Platform One capabilities. IDCS will employ an agile development process to deliver incremental capabilities at the speed required to counter the emerging and persistent cyber threat. IDCS will integrate commercial off the shelf, Government off the shelf and open-source software capabilities as appropriate to achieve an effective mission capability.

IDCS will procure software development capacity through various existing and new contractual vehicles. Contract sources include Government-Wide Acquisition Contracts (GWACs) such as Alliant, Encore III, NASA Solutions for Enterprise-Wide Procurement IV (SEWP IV), and General Services Administration GSA) Federal Supply Schedules. IDCS will also use Small Business Innovative Research (SBIR) and Air Force Research Laboratory (AFRL) contracts, FFRDCs, Advisory and Assistance Services (A&AS) contracts, and support from Test and Evaluation Enterprises. Wherever possible IDCS will use competitive contracts and task orders to ensure cost efficiency and industry engagement.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Air Force			Date: March 2024
Appropriation/Budget Activity 3600 / 7	**R-1 Program Element (Number/Name)** PE 0208088F / *AF Defensive Cyberspace Operations*	**Project (Number/Name)** 677824 / *677824 - Integrated Defensive Cyberspace System*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
IDCS: Software Development - CI/CD Pipeline	TBD	TBD : TBD	-	-		-		9.800	Jan 2025	-		9.800	Continuing	Continuing	9.800
IDCS: Software Development - Control Plane	TBD	TBD : TBD	-	-		-		10.600	Jan 2025	-		10.600	Continuing	Continuing	10.600
IDCS: Software Development - Data Plane	TBD	TBD : TBD	-	-		-		11.100	Jan 2025	-		11.100	Continuing	Continuing	11.100
IDCS: Software Development - Data Platform, Ingest, Analytics, and Display (ELICSAR BDP)	TBD	TBD : TBD	-	-		-		27.900	Jan 2025	-		27.900	Continuing	Continuing	27.900
IDCS: Software Development - Multiple Personas	TBD	TBD : TBD	-	-		-		15.064	Jan 2025	-		15.064	Continuing	Continuing	15.064
		Subtotal	-	-		-		74.464		-		74.464	Continuing	Continuing	N/A

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
IDCS: Data Science	TBD	Not specified. : TBD	-	-		-		3.000	Jan 2025	-		3.000	Continuing	Continuing	3.000
IDCS: Early ContinuousOperator Training Support	TBD	Not specified. : TBD	-	-		-		3.500	Jan 2025	-		3.500	Continuing	Continuing	3.500
IDCS: Digital Engineering	TBD	Not specified. : TBD	-	-		-		3.000	Jan 2025	-		3.000	Continuing	Continuing	3.000
		Subtotal	-	-		-		9.500		-		9.500	Continuing	Continuing	N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Air Force			Date: March 2024
Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 0208088F / *AF Defensive Cyberspace Operations*	Project (Number/Name) 677824 / *677824 - Integrated Defensive Cyberspace System*	

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
IDCS: 47th Cyber Test Sq	PO	Not specified. : TBD	-	-		-		2.800	Oct 2024	-		2.800	Continuing	Continuing	2.800
IDCS: 48th Test Support Sq	PO	Not specified. : TBD	-	-		-		2.200	Oct 2024	-		2.200	Continuing	Continuing	2.200
		Subtotal	-	-		-		5.000		-		5.000	Continuing	Continuing	N/A

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
IDCS: ProgramSupport Costs (PSC)	Various	Not specified. : TBD	-	-		-		11.517	Apr 2025	-		11.517	Continuing	Continuing	11.517
IDCS: Direct Cite Authority Civilian Pay	Allot	Not specified. : TBD	-	-		-		5.500	Oct 2024	-		5.500	Continuing	Continuing	5.500
		Subtotal	-	-		-		17.017		-		17.017	Continuing	Continuing	N/A

	Prior Years	FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	-	-		-		105.981		-		105.981	Continuing	Continuing	N/A

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2025 Air Force		Date: March 2024
Appropriation/Budget Activity 3600 / 7	**R-1 Program Element (Number/Name)** PE 0208088F / *AF Defensive Cyberspace Operations*	**Project (Number/Name)** 677824 / *677824 - Integrated Defensive Cyberspace System*

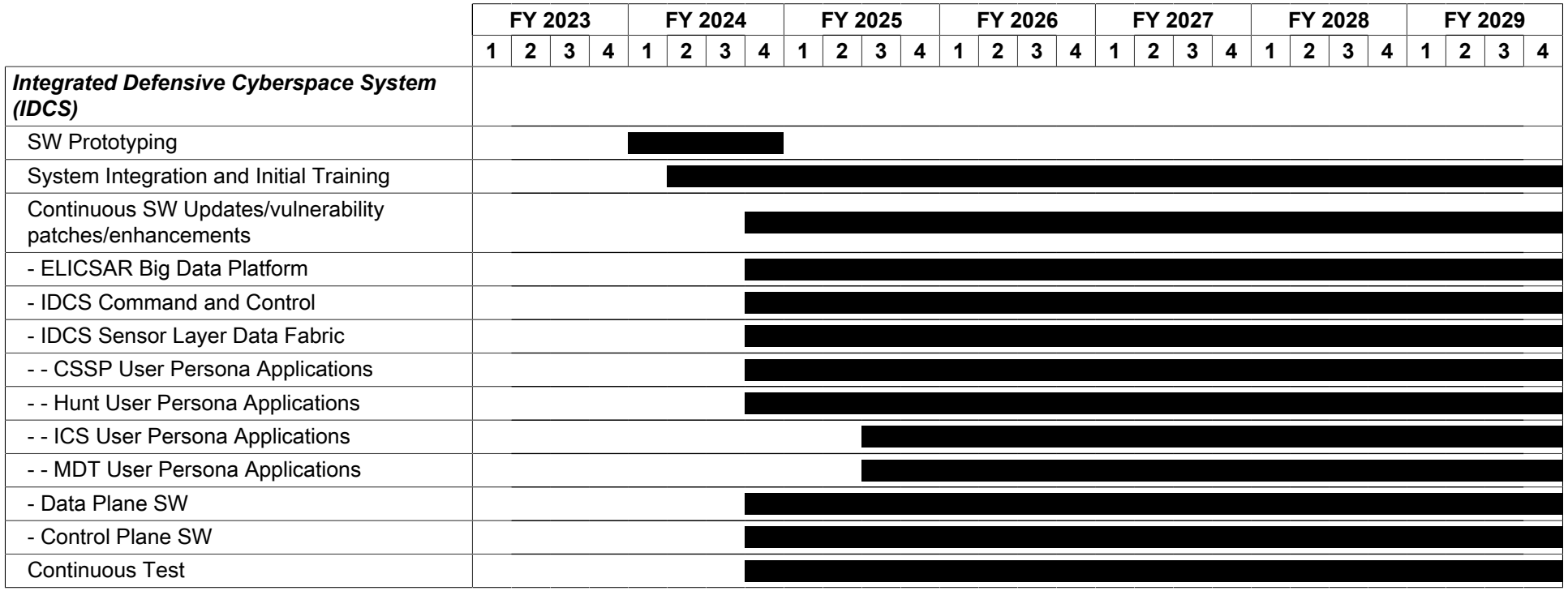

Exhibit R-4A, RDT&E Schedule Details: PB 2025 Air Force		Date: March 2024
Appropriation/Budget Activity 3600 / 7	**R-1 Program Element (Number/Name)** PE 0208088F / *AF Defensive Cyberspace Operations*	**Project (Number/Name)** 677824 / *677824 - Integrated Defensive Cyberspace System*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Integrated Defensive Cyberspace System (IDCS)				
SW Prototyping	1	2024	4	2024
System Integration and Initial Training	2	2024	4	2029
Continuous SW Updates/vulnerability patches/enhancements	4	2024	4	2029
- ELICSAR Big Data Platform	4	2024	4	2029
- IDCS Command and Control	4	2024	4	2029
- IDCS Sensor Layer Data Fabric	4	2024	4	2029
- - CSSP User Persona Applications	4	2024	4	2029
- - Hunt User Persona Applications	4	2024	4	2029
- - ICS User Persona Applications	3	2025	4	2029
- - MDT User Persona Applications	3	2025	4	2029
- Data Plane SW	4	2024	4	2029
- Control Plane SW	4	2024	4	2029
Continuous Test	4	2024	4	2029