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Exhibit R-2, RDT&E Budget Item Justification: PB 2023 Air Force **Date:** April 2022

Appropriation/Budget Activity 3600: <i>Research, Development, Test & Evaluation, Air Force I BA 7: Operational Systems Development</i>	R-1 Program Element (Number/Name) PE 0208088F / <i>AF Defensive Cyberspace Operations</i>
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COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
Total Program Element	-	29.255	18.449	8.367	0.000	8.367	7.305	7.444	7.603	7.786	Continuing	Continuing
677820: <i>Computer Security RDTE: Firestarter</i>	-	21.469	8.527	0.274	0.000	0.274	0.386	0.395	0.407	0.429	Continuing	Continuing
677821: <i>Cyberspace Vulnerability Assessment</i>	-	6.160	8.288	7.798	0.000	7.798	6.618	6.742	6.883	7.037	Continuing	Continuing
677822: <i>Cyber Defense Analysis</i>	-	0.279	0.281	0.295	0.000	0.295	0.301	0.307	0.313	0.320	Continuing	Continuing
677823: <i>AFCERT</i>	-	1.347	1.353	0.000	0.000	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing

Note

In FY23, the DAF realigned 240.9M from Program Element (PE) 0208088F AF Defensive Cyberspace Operations (AFDCO) to PE 0308605F AF Defensive Cyber Systems (AFDCS) in order to consolidate efforts under a single Budget Activity 8 (BA08) Software and Digital Technology Pilot Program. This consolidation helps accelerate integration and modernization required to address the evolving cyber threat. Prior to FY23, funding was contained in PE 0208088F Projects 677821; 677822; 677823; Operations & Maintenance (O&M) AG/SAGs 12D/11V, and Other Procurement Line Item 834320.

PE 0208088F Project 677820 Computer Security RDTE: Firestarter will continue to remain in PE 0208088F Project 677820 Computer Security RDTE: Firestarter.

FY23 to FY27 Project 677820 Firestarter funding incorrect due to a database error. Project 677820 Firestarter funding should equal FY23:8.367M; FY24: \$7.305M; FY25: \$7.444M; FY26: \$7.603M; FY27: \$7.786M;

Projects 677821, 677822, and 677823 should equal \$0.0M; no funding requested for these projects in FY23.

A. Mission Description and Budget Item Justification

AF Defensive Cyberspace Operations (AF DCO) consists of Air Force Defensive Cyber Systems (AFDCS) and Firestarter to provide defensive cyber capabilities that protect the AFNET and DoD network enclaves, to include their associated computer systems, software applications and sensitive operational information against unauthorized intrusion, corruption, and/or destruction. 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, command and control situational awareness, persistent network operations, as well as decision support, recovery, and digital forensics.

Firestarter utilizes cyber and Information Assurance (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), the Department of Homeland

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Appropriation/Budget Activity 3600: <i>Research, Development, Test & Evaluation, Air Force I BA 7: Operational Systems Development</i>	R-1 Program Element (Number/Name) PE 0208088F / <i>AF Defensive Cyberspace Operations</i>	
<p>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. 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.</p> <p>In FY23, the DAF realigned \$240.9M from Program Element (PE) 0208088F AF Defensive Cyberspace Operations (AFDCO) to PE 0308605F AF Defensive Cyber Systems (AFDCS) in order to consolidate efforts under a single Budget Activity 8 (BA08) Software and Digital Technology Pilot Program. This consolidation helps accelerate integration and modernization required to address the evolving cyber threat. Prior to FY23, funding was contained in PE 0208088F Projects 677821; 677822; 677823; Operations & Maintenance (O&M) AG/SAGs 12D/11V, and Other Procurement Line Item 834320. The FY18 NDAA Sections 873/874 directed OSD to streamline software development. The Air Force Defensive Cyber Systems (AFDCS) effort is an OSD pilot initiative in which all lifecycle funding will be tracked under BA08, Software and Digital Technology Pilot Programs. Pilot programs will allow the DAF to execute modern software development practices encompassing development, procurement, modification and maintenance activities within a single appropriation.</p> <p>Air Force Defensive Cyber Systems (AFDCS) sustains, enhances, and integrates three defensive cyber weapon systems: Cyberspace Vulnerability Assessment/Hunter (CVA/H); Cyber Defense Analysis (CDA); and AFCERT (ACD). AFDCS provides and equips USAF operational units, predominantly Cyber Protection Teams, Mission Defense Teams, and network defenders with the capabilities required to protect USAF networks and systems. End users comprise over 2,000 operators across the country from across the Total Force - Active Duty (AD), Air National Guard (ANG), and Air Force Reserve Command(AFRC). AFDCS coordinates and executes resources needed to assess, analyze, and respond to Air Force network security incidents, intrusive activity, malicious logic (i.e., viruses) and vulnerabilities. AFDCS provides continuous monitoring and defense of Cybersecurity Service Provider (CSSP) assigned to the Department of Defense (DoD), AF classified, and unclassified computer networks. AFDCS conducts defensive cyberspace operations by monitoring, collecting, analyzing, and reporting on sensitive information released from friendly unclassified systems, such as computer networks, telephones, email, and USAF websites. AFDCS conducts vulnerability assessments, network intrusion analysis, systems vulnerability analysis, and protects against the advanced persistent threat through fielded Hunter teams. Hunter teams provide worldwide defensive cyberspace operations on AF classified and unclassified networks.</p> <p>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, 0605832F, 0605833F, 0605898F, 0606398F. In PY \$0.103M was expended for civilian pay expenses in this program element and in CY \$0.228M is forecasted for civilian pay expenses in this program element.</p> <p>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.</p>		

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Exhibit R-2, RDT&E Budget Item Justification: PB 2023 Air Force	Date: April 2022
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Appropriation/Budget Activity 3600: <i>Research, Development, Test & Evaluation, Air Force I BA 7: Operational Systems Development</i>	R-1 Program Element (Number/Name) PE 0208088F / <i>AF Defensive Cyberspace Operations</i>
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B. Program Change Summary (\$ in Millions)	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Previous President's Budget	30.108	18.449	0.000	0.000	0.000
Current President's Budget	29.255	18.449	8.367	0.000	8.367
Total Adjustments	-0.853	0.000	8.367	0.000	8.367
• 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	-0.853	0.000			
• Other Adjustments	0.000	0.000	8.367	0.000	8.367

Congressional Add Details (\$ in Millions, and Includes General Reductions)

Project: 677820: *Computer Security RDTE: Firestarter*

Congressional Add: *Critical Infrastructure Cyber Security*

	FY 2021	FY 2022
	15.000	0.000
Congressional Add Subtotals for Project: 677820	15.000	0.000
Congressional Add Totals for all Projects	15.000	0.000

Change Summary Explanation

The FY 2022 President's Budget submittal did not reflect FY 2023 through FY 2026 funding. Therefore, an explanation of the change between the two budget positions for FY2023 cannot be made in a relevant manner.

FY23, PE 0208088F, BPAC 677821, BPAC 677822, BPAC 677823, Transfer to PE 0308605F Air Force Defensive Cyber Systems (AFDCS), Project Number 682001, AFDCS Continuous Capability Development, to participate in the DoD's Software & Digital Technology Pilot Program.

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Exhibit R-2A, RDT&E Project Justification: PB 2023 Air Force										Date: April 2022		
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 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
677820: Computer Security RDTE: Firestarter	-	21.469	8.527	0.274	0.000	0.274	0.386	0.395	0.407	0.429	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note

FY23 to FY27 Project 677820 Firestarter funding incorrect due to a database error. Project 677820 Firestarter funding should equal FY23:\$8.367M; FY24:\$7.305M; FY25:\$7.444M; FY26:\$7.603M; FY27:\$7.786M;

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 Information Assurance (IA) & Computer Network Defense (CND) Solutions Steering Group (ESSG) solutions.

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

	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Title: Cyber Forensic Tools & Methodologies	1.400	0.000	0.000	0.000	0.000
Description: Cyber forensic tools & methodologies. Includes initial metrics for reliable info assurance; secure coalition cyber data management, collaboration and visualization; analysis of cyber security bots					

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Exhibit R-2A, RDT&E Project Justification: PB 2023 Air Force	Date: April 2022
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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
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	FY 2021	FY 2022
- Performed research; developed test plans, exercises, and security configurations; conducted assessments; and completed technical reports on a variety of Air Force critical infrastructure and interfaces <i>FY 2022 Plans:</i> N/A		
Congressional Adds Subtotals	15.000	0.000

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

Remarks
Beginning in FY22, all planned programs realigned to Transition of Cyber and Information Assurance Technologies in order to more accurately represent planned activities.

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 USAF 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.

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2023 Air Force **Date:** April 2022

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
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Product Development (\$ in Millions)				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Firestarter Development	C/CPFF	Various : Various	-	18.370	Jan 2021	4.511	Jan 2022	0.152	Jan 2023	-		0.152	Continuing	Continuing	-
Firestarter Integration	C/CPFF	Various : Various	-	1.499	Jan 2021	1.929	Jan 2022	0.062	Jan 2023	-		0.062	Continuing	Continuing	-
Subtotal			-	19.869		6.440		0.214		-		0.214	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)				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Firestarter Testing	C/CPFF	Various : Various	-	1.375	Jan 2021	1.862	Jan 2022	0.060	Jan 2023	-		0.060	Continuing	Continuing	-
Subtotal			-	1.375		1.862		0.060		-		0.060	Continuing	Continuing	N/A

Management Services (\$ in Millions)				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Firestarter PMA	C/CPAF	Various : Various	-	0.225	Jan 2021	0.225	Jan 2022	-		-		-	0.000	0.450	-
Subtotal			-	0.225		0.225		-		-		-	0.000	0.450	N/A

			Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			-	21.469	8.527	0.274	-	0.274	Continuing	Continuing	N/A

Remarks
FY23 funding incorrect due to database error. Firestarter Development should equal \$4.65M; Firestarter Integration should equal \$1.89M; and Firestarter Testing should equal \$1.83M; Project total for FY23 should equal \$8.367M.

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Exhibit R-4, RDT&E Schedule Profile: PB 2023 Air Force		Date: April 2022
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 2021				FY 2022				FY 2023				FY 2024				FY 2025				FY 2026				FY 2027			
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

Firestarter	
Cyber Forensic Tools & Methodologies	
Cyber Threat Recognition	
Cyber Threat Attribution & Mitigation	
Transition of Cyber/IA Technologies	
Critical Infrastructure Cyber Security	

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Exhibit R-4A, RDT&E Schedule Details: PB 2023 Air Force		Date: April 2022
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

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
Firestarter				
Cyber Forensic Tools & Methodologies	1	2021	4	2021
Cyber Threat Recognition	1	2021	4	2021
Cyber Threat Attribution & Mitigation	1	2021	4	2021
Transition of Cyber/IA Technologies	1	2021	4	2027
Critical Infrastructure Cyber Security	1	2021	4	2022

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Exhibit R-2A, RDT&E Project Justification: PB 2023 Air Force										Date: April 2022		
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 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
677821: <i>Cyberspace Vulnerability Assessment</i>	-	6.160	8.288	7.798	0.000	7.798	6.618	6.742	6.883	7.037	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note

FY23 to FY27 Project 677821 Cyberspace Vulnerability Assessment funding incorrect due to database system error.

Project 677821 Cyberspace Vulnerability Assessment should equal \$0.0M as budget controls have been realigned from Air Force Program Element (PE) 0208088F Projects 677821, 677822, 677823, Operations & Maintenance (O&M) AG/SAG 11V/12D, and Other Procurement Line Item 834320 and consolidated into Budget Activity 8 in PE 0308605F, Project 682001, Air Force Defensive Cyber Systems (AFDCS) in order to participate in the DoD's Software & Digital Technology Pilot Program.

A. Mission Description and Budget Item Justification

In FY23, the DAF realigned \$240.9M from Program Element (PE) 0208088F AF Defensive Cyberspace Operations (AFDCO) to PE 0308605F AF Defensive Cyber Systems (AFDCS) in order to consolidate efforts under a single Budget Activity 8 (BA08) Software and Digital Technology Pilot Program. This consolidation helps accelerate integration and modernization required to address the evolving cyber threat. Prior to FY23, funding was contained in PE 0208088F Projects 677821; 677822; 677823; Operations & Maintenance (O&M) AG/SAGs 12D/11V, and Other Procurement Line Item 834320.

This requirement supports the Cyberspace Vulnerability Assessment/Hunter Team (CVA/H) weapon system development of new capabilities to provide 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.

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 PY \$0.103M was expended for civilian pay expenses in this program element, and in CY \$0.228M is forecasted for civilian pay expenses in this program element.

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

	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Title: Cyber Threat Mitigation	0.400	0.718	0.826	0.000	0.826

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Exhibit R-2A, RDT&E Project Justification: PB 2023 Air Force		Date: April 2022
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 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
<p>Description: Cyber Threat Mitigation includes vulnerability, compliance, defense and non-technical assessments, best practice reviews, penetration testing and supports Cyberspace Vulnerability Assessment/Hunter (CVA/H) missions in support of Air Force Cyber Command and Combatant Commanders.</p> <p>FY 2022 Plans: - Continue development and integration of technologies to conduct vulnerability assessments, network intrusion analysis and systems vulnerability analysis</p> <p>FY 2023 Base Plans: See PE 0308605F, Air Force Defensive Cyber Systems (AFDCS), Project Number 682001, AFDCS Continuous Capability Delivery.</p> <p>FY 2023 OCO Plans: N/A</p> <p>FY 2022 to FY 2023 Increase/Decrease Statement: Database error. FY23 funds should equal \$0.0M. Funds realigned to Budget Activity 8 in PE 0308605F, Project 682001, Air Force Defensive Cyber Systems (AFDCS) in order to participate in the DoD's Software & Digital Technology Pilot Program.</p>					
<p>Title: Defensive Next Generation Development</p> <p>Description: Development and integration of solutions supporting defensive cyber modernization and AF Cyber Needs Forms in the area of DCO capabilities and technologies to meet capability gaps required by Cyber Protection Teams and Mission Defense Teams.</p> <p>FY 2022 Plans: - Continue development and integration to support modernization of DCO capabilities and technologies to support Cyber Protection Teams and Mission Defense Teams</p> <p>FY 2023 Base Plans: See PE 0308605F, Air Force Defensive Cyber Systems (AFDCS), Project Number 682001, AFDCS Continuous Capability Delivery.</p> <p>FY 2023 OCO Plans:</p>	5.188	6.570	6.572	0.000	6.572

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Exhibit R-2A, RDT&E Project Justification: PB 2023 Air Force		Date: April 2022
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B. Accomplishments/Planned Programs (\$ in Millions)	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
N/A					
<i>FY 2022 to FY 2023 Increase/Decrease Statement:</i> Database error. FY23 funds should equal \$0.0M. Funds realigned to Budget Activity 8 in PE 0308605F, Project 682001, Air Force Defensive Cyber Systems (AFDCS) in order to participate in the DoD's Software & Digital Technology Pilot Program.					
<i>Title:</i> Test & Evaluation Description: Test and Evaluation <i>Description:</i> Test and Evaluation provides both developmental testing of new capabilities and the test environments for validating the capabilities. <i>FY 2022 Plans:</i> - Continue development testing for DCO capability products and technologies prior to fielding <i>FY 2023 Base Plans:</i> See PE 0308605F, Air Force Defensive Cyber Systems (AFDCS), Project Number 682001, AFDCS Continuous Capability Delivery. <i>FY 2023 OCO Plans:</i> N/A <i>FY 2022 to FY 2023 Increase/Decrease Statement:</i> Database error. FY23 funds should equal \$0.0M. Funds realigned to Budget Activity 8 in PE 0308605F, Project 682001, Air Force Defensive Cyber Systems (AFDCS) in order to participate in the DoD's Software & Digital Technology Pilot Program.	0.572	1.000	0.400	0.000	0.400
Accomplishments/Planned Programs Subtotals	6.160	8.288	7.798	0.000	7.798

C. Other Program Funding Summary (\$ in Millions)											
Line Item	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
• OPAF 03 834320: C3 Countermeasures	22.616	27.770	-	-	-	-	-	-	-	-	Continuing Continuing

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Exhibit R-2A, RDT&E Project Justification: PB 2023 Air Force	Date: April 2022
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Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 0208088F / AF Defensive Cyberspace Operations	Project (Number/Name) 677821 / Cyberspace Vulnerability Assessment
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C. Other Program Funding Summary (\$ in Millions)

<u>Line Item</u>	<u>FY 2021</u>	<u>FY 2022</u>	<u>FY 2023</u> <u>Base</u>	<u>FY 2023</u> <u>OCO</u>	<u>FY 2023</u> <u>Total</u>	<u>FY 2024</u>	<u>FY 2025</u>	<u>FY 2026</u>	<u>FY 2027</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
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Remarks
 In FY23, the DAF realigned \$240.9M from Program Element (PE) 0208088F AF Defensive Cyberspace Operations (AFDCO) to PE 0308605F AF Defensive Cyber Systems (AFDCS) in order to consolidate efforts under a single Budget Activity 8 (BA08) Software and Digital Technology Pilot Program. This consolidation helps accelerate integration and modernization required to address the evolving cyber threat. Prior to FY23, funding was contained in PE 0208088F Projects 677821; 677822; 677823; Operations & Maintenance (O&M) AG/SAGs 12D/11V, and Other Procurement Line Item 834320.

D. Acquisition Strategy

The Cyberspace Vulnerability Assessment Hunter (CVA/H) program office will utilize Concept, Development, Risk Management, or Production and Deployment Plans as part of a phased approach to acquisition planning. All plans will contain sufficient information for the Milestone Decision Authority (MDA) to determine readiness to enter into the applicable phase of the acquisition process. CVA/H Program office will utilize both new and existing contractual vehicles, in addition to existing Government-Wide Acquisition Contract (GWAC) vehicles such as Alliant, Encore II, Solutions for Enterprise-Wide Procurement IV (SEWP IV), and General Services Administration (GSA) Federal Supply Schedules, Network-Centric Solutions (NETCENTs).

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2023 Air Force **Date:** April 2022

Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 0208088F / AF Defensive Cyberspace Operations	Project (Number/Name) 677821 / Cyberspace Vulnerability Assessment
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Product Development (\$ in Millions)				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Cyber Threat Mitigation - Threat Intelligence	C/CPFF	Various : Various	-	0.400	Jan 2021	0.680	Jan 2022	0.826	Jan 2023	-		0.826	Continuing	Continuing	-
Defensive Next Gen - Data & Analysis	C/CPFF	Various : Various	-	0.613	Mar 2021	0.800	Mar 2022	0.882	Mar 2023	-		0.882	Continuing	Continuing	-
Defensive Next Gen - Sensor Optimization	C/FFP	Various : Various	-	1.005	May 2021	1.100	May 2022	1.300	May 2023	-		1.300	Continuing	Continuing	-
Defensive Next Gen - Training Simulator	C/FFP	Various : Various	-	0.570	Apr 2021	1.440	Apr 2022	0.000	Apr 2023	-		0.000	Continuing	Continuing	-
Defensive Next Gen - Data Collection and Correlation	C/FFP	Various : Various	-	0.542	Mar 2021	0.648	Mar 2022	0.710	Mar 2023	-		0.710	Continuing	Continuing	-
Defensive Next Gen - Intrusion Prevention Capabilities	C/FFP	Various : Various	-	0.656	Aug 2021	0.700	Aug 2022	0.820	Aug 2023	-		0.820	Continuing	Continuing	-
Subtotal			-	3.786		5.368		4.538		-		4.538	Continuing	Continuing	N/A

Support (\$ in Millions)				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Direct Cite Authority Civilian Pay	TBD	USAF : Hanscom AFB, MA	-	0.103	Oct 2020	0.228	Oct 2021	-		-		-	Continuing	Continuing	-
Subtotal			-	0.103		0.228		-		-		-	Continuing	Continuing	N/A

Test and Evaluation (\$ in Millions)				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Test Support	MIPR	46 Test Squadron : Eglin, FL	-	0.572	Oct 2020	1.000	Oct 2021	0.400	Oct 2022	-		0.400	Continuing	Continuing	-
Subtotal			-	0.572		1.000		0.400		-		0.400	Continuing	Continuing	N/A

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2023 Air Force **Date:** April 2022

Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 0208088F / AF Defensive Cyberspace Operations	Project (Number/Name) 677821 / Cyberspace Vulnerability Assessment
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Management Services (\$ in Millions)				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
PMA - Engineering & Technical Assistance Support Services (ETASS & FFRDC)	Various	AFLCMC/PZ : Bedford, MA	-	1.699	Jan 2021	1.692	Jan 2022	2.860	Jan 2023	-		2.860	Continuing	Continuing	-
Subtotal			-	1.699		1.692		2.860		-		2.860	Continuing	Continuing	N/A
Project Cost Totals			-	6.160		8.288		7.798		-		7.798	Continuing	Continuing	N/A

Remarks
 FY23 funding incorrect due to database error. Correct funding should equal \$0.0M; no funding requested for these projects in FY23.

In FY23, the DAF realigned \$240.9M from Program Element (PE) 0208088F AF Defensive Cyberspace Operations (AFDCO) to PE 0308605F AF Defensive Cyber Systems (AFDCS) in order to consolidate efforts under a single Budget Activity 8 (BA08) Software and Digital Technology Pilot Program. This consolidation helps accelerate integration and modernization required to address the evolving cyber threat. Prior to FY23, funding was contained in PE 0208088F Projects 677821; 677822; 677823; Operations & Maintenance (O&M) AG/SAGs 12D/11V, and Other Procurement Line Item 834320.

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Exhibit R-4A, RDT&E Schedule Details: PB 2023 Air Force		Date: April 2022
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

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<i>Cyber Vulnerability Assessment</i>				
Test and Evaluation	1	2021	4	2022
Cyber Threat Mitigation	1	2021	4	2022
Defensive Next Generation Development (Data & Analysis)	1	2021	4	2022
Defensive Next Generation (Data Collection and Correlation)	1	2021	4	2022
Defensive Next Generation Sensor Optimization	1	2021	4	2022
Defensive Next Generation (Training Simulator)	1	2021	4	2022
Defensive Next Generation (Cloudshield Capabilities)	1	2021	4	2022

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Exhibit R-2A, RDT&E Project Justification: PB 2023 Air Force **Date:** April 2022

Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 0208088F / AF Defensive Cyberspace Operations	Project (Number/Name) 677822 / Cyber Defense Analysis
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COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
677822: <i>Cyber Defense Analysis</i>	-	0.279	0.281	0.295	0.000	0.295	0.301	0.307	0.313	0.320	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note

FY23 to FY27 Project 677822 Cyber Defense Analysis funding incorrect due to database system error. FY23 to FY27 funding should be \$0.0M.

Project 677822 Cyber Defense Analysis should equal \$0.0M as budget controls have been realigned from Air Force Program Element (PE) 0208088F Projects 677821, 677822, 677823, Operations & Maintenance (O&M) AG/SAG 11V/12D, and Other Procurement Line Item 834320 and consolidated into Budget Activity 8 in PE 0308605F, Project 682001, Air Force Defensive Cyber Systems (AFDCS) in order to participate in the DoD's Software & Digital Technology Pilot Program.

A. Mission Description and Budget Item Justification

In FY23, the DAF realigned \$240.9M from Program Element (PE) 0208088F AF Defensive Cyberspace Operations (AFDCO) to PE 0308605F AF Defensive Cyber Systems (AFDCS) in order to consolidate efforts under a single Budget Activity 8 (BA08) Software and Digital Technology Pilot Program. This consolidation helps accelerate integration and modernization required to address the evolving cyber threat. Prior to FY23, funding was contained in PE 0208088F Projects 677821; 677822; 677823; Operations & Maintenance (O&M) AG/SAGs 12D/11V, and Other Procurement Line Item 834320.

Cyberspace Defense Analysis (CDA): The 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 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 PY \$0.000M was expended for civilian pay expenses in this program element, and in CY \$0.000M is forecasted for civilian pay expenses in this program element.

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Exhibit R-2A, RDT&E Project Justification: PB 2023 Air Force	Date: April 2022
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Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 0208088F / AF Defensive Cyberspace Operations	Project (Number/Name) 677822 / Cyber Defense Analysis
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B. Accomplishments/Planned Programs (\$ in Millions)	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
<p>Title: Cyber Defense Analysis</p> <p>Description: Engineering support to conduct Cyberspace Defense Analysis (CDA) assessment of non-secure telecommunications during peace time and contingency operations.</p> <p>FY 2022 Plans: - Continue support of development of data loss prevention technologies and support to insider threat detection capabilities. Support technology areas that prevent adversaries' attempts to get into our networks.</p> <p>FY 2023 Base Plans: See PE 0308605F, Air Force Defensive Cyber Systems (AFDCS), Project Number 682001, AFDCS Continuous Capability Delivery.</p> <p>FY 2023 OCO Plans: N/A</p> <p>FY 2022 to FY 2023 Increase/Decrease Statement: Database error. FY23 funds should equal \$0.0M. Funds realigned to Budget Activity 8 in PE 0308605F, Project 682001, Air Force Defensive Cyber Systems (AFDCS) in order to participate in the DoD's Software & Digital Technology Pilot Program.</p>	0.279	0.281	0.295	0.000	0.295
Accomplishments/Planned Programs Subtotals	0.279	0.281	0.295	0.000	0.295

C. Other Program Funding Summary (\$ in Millions)											
<u>Line Item</u>	<u>FY 2021</u>	<u>FY 2022</u>	<u>FY 2023 Base</u>	<u>FY 2023 OCO</u>	<u>FY 2023 Total</u>	<u>FY 2024</u>	<u>FY 2025</u>	<u>FY 2026</u>	<u>FY 2027</u>	<u>Cost To Complete</u>	<u>Total Cost</u>
• OPAF 03 834320: C3 Countermeasures	1.699	10.374	-	-	-	-	-	-	-	-	Continuing Continuing

Remarks
In FY23, the DAF realigned \$240.9M from Program Element (PE) 0208088F AF Defensive Cyberspace Operations (AFDCO) to PE 0308605F AF Defensive Cyber Systems (AFDCS) in order to consolidate efforts under a single Budget Activity 8 (BA08) Software and Digital Technology Pilot Program. This consolidation helps accelerate integration and modernization required to address the evolving cyber threat. Prior to FY23, funding was contained in PE 0208088F Projects 677821; 677822; 677823; Operations & Maintenance (O&M) AG/SAGs 12D/11V, and Other Procurement Line Item 834320.

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Exhibit R-2A, RDT&E Project Justification: PB 2023 Air Force		Date: April 2022
Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 0208088F / AF Defensive Cyberspace Operations	Project (Number/Name) 677822 / Cyber Defense Analysis

D. Acquisition Strategy

The Cyberspace Defense Analysis (CDA) Weapon System development of new capabilities to provide additional information protection capabilities to monitor, collect, analyze, and report cyberspace threats and compromised data. These capabilities encompass the support to OPSEC protection as well. The CDA program will utilize various contractual vehicles when necessary such as Government-Wide Acquisition Contract (GWAC), Alliant, Encore II, Solutions for Enterprise-Wide Procurement IV (SEWP IV), and General Services Administration (GSA) Federal Supply Schedules, Network-Centric Solutions (NETCENTS) and competitive contract (if required). The use of multiple-award contractual vehicles will provide a wide range of commercially-available products and services that should be able to meet requirements related to Defensive Cyberspace Operations.

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2023 Air Force **Date:** April 2022

Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 0208088F / AF Defensive Cyberspace Operations	Project (Number/Name) 677822 / Cyber Defense Analysis
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Management Services (\$ in Millions)				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
CDA PMA - Engineering & Technical Assistance Support Services (ETASS & FFRDC)	Various	AFLCMC/PZ : Hanscom, MA	-	0.279	Jan 2021	0.281	Jan 2022	0.295	Jan 2023	-		0.295	Continuing	Continuing	-
Subtotal			-	0.279		0.281		0.295		-		0.295	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 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	-	0.279	0.281	0.295	-	0.295	Continuing	Continuing	N/A

Remarks
FY23 funding incorrect due to database error. FY23 funding should equal \$0.0M.

In FY23, the DAF realigned \$240.9M from Program Element (PE) 0208088F AF Defensive Cyberspace Operations (AFDCO) to PE 0308605F AF Defensive Cyber Systems (AFDCS) in order to consolidate efforts under a single Budget Activity 8 (BA08) Software and Digital Technology Pilot Program. This consolidation helps accelerate integration and modernization required to address the evolving cyber threat. Prior to FY23, funding was contained in PE 0208088F Projects 677821; 677822; 677823; Operations & Maintenance (O&M) AG/SAGs 12D/11V, and Other Procurement Line Item 834320.

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Exhibit R-4, RDT&E Schedule Profile: PB 2023 Air Force		Date: April 2022
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 2021				FY 2022				FY 2023				FY 2024				FY 2025				FY 2026				FY 2027			
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 (FFRDC)	

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Exhibit R-4A, RDT&E Schedule Details: PB 2023 Air Force		Date: April 2022
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

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
Cyber Defense Analysis				
Cyber Defense Analysis (FFRDC)	1	2021	4	2022

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Exhibit R-2A, RDT&E Project Justification: PB 2023 Air Force										Date: April 2022		
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 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
677823: AFCERT	-	1.347	1.353	0.000	0.000	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note

Project 677823 AFCERT budget controls have been realigned from Air Force Program Element (PE) 0208088F Projects 677821, 677822, 677823, Operations & Maintenance (O&M) AG/SAG 11V/12D, and Other Procurement Line Item 834320 and consolidated into Budget Activity 8 in PE 0308605F, Project 682001, Air Force Defensive Cyber Systems (AFDCS) in order to participate in the DoD's Software & Digital Technology Pilot Program.

A. Mission Description and Budget Item Justification

In FY23, the DAF realigned \$240.9M from Program Element (PE) 0208088F AF Defensive Cyberspace Operations (AFDCO) to PE 0308605F AF Defensive Cyber Systems (AFDCS) in order to consolidate efforts under a single Budget Activity 8 (BA08) Software and Digital Technology Pilot Program. This consolidation helps accelerate integration and modernization required to address the evolving cyber threat. Prior to FY23, funding was contained in PE 0208088F Projects 677821; 677822; 677823; Operations & Maintenance (O&M) AG/SAGs 12D/11V, and Other Procurement Line Item 834320.

The AF Cyberspace Defense (ACD) weapon system is designed to prevent, detect, and respond to adversarial penetration into AF unclassified and classified networks. ACD supports Air Force and Combatant Commanders by conducting synchronized Defensive Cyber Operations (DCO) and providing 24/7/365 monitoring and defense of USAF and US Central Command Secure/Non-secure Internet Protocol Router Network (SIPRNET/NIPRNET) systems against hostile attack. Daily intrusions to the AF network are analyzed in a forensics manner to identify a multitude of counter defensive and defensive tools and techniques that are required to truly strengthen cyber security. The Air Force Research Laboratory (AFRL), Air Force CyberWorx, and other Federal R&D entities often have cutting edge solutions, that, with Research and Development funding, take them to the technology readiness level (TRL) needed for rapid deployment as new capabilities to counter critical cyber weapon system vulnerabilities. AFCERT funding for this effort will focus on development of capability, capacity, and potential modifications to increase the utility of the ACD weapon system to the warfighter as well as testing requirements for new capabilities.

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 PY 00.000M was expended for civilian pay expenses in this program element, and in CY 00.000M is forecasted for civilian pay expenses in this program element.

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

	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Title: Cyberspace Defense Development	1.347	1.353	0.000	0.000	0.000

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Exhibit R-2A, RDT&E Project Justification: PB 2023 Air Force		Date: April 2022
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 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
<p>Description: AF Cyberspace Defense (ACD) weapon system to prevent, detect, and respond to adversarial penetration in AF networks</p> <p>FY 2022 Plans: - Continue to develop and test technologies for the AF Cyberspace Defense (ACD) weapon system to prevent, detect, and respond to adversarial penetration in AF networks</p> <p>FY 2023 Base Plans: See PE 0308605F, Air Force Defensive Cyber Systems (AFDCS), Project Number 682001, AFDCS Continuous Capability Delivery.</p> <p>FY 2023 OCO Plans: N/A</p> <p>FY 2022 to FY 2023 Increase/Decrease Statement: N/A - Funding realigned to BA8 PE 0308605F Project 682001.</p>					
Accomplishments/Planned Programs Subtotals	1.347	1.353	0.000	0.000	0.000

C. Other Program Funding Summary (\$ in Millions)											
Line Item	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
• OPAF 03 834320: C3 Countermeasures	23.860	35.463	0.000	-	0.000	-	-	-	-	-	Continuing Continuing

Remarks

D. Acquisition Strategy
The AF Cyberspace Defense (ACD) weapon system office will utilize existing contractual vehicles such as Massachusetts Institute of Technology Research and Engineering (MITRE), General Services Administration (GSA) Federal Supply Schedules, Air Force Research Laboratory (AFRL), Advisory and Assistance Services (A&AS) as well as various Test and Evaluation Enterprises. The ACD weapon system office also intends to utilize the commercial contracting community to lead the Development, Test and Integration of future Cyberspace Defense capabilities. The use of multiple-award contractual vehicles will provide a wide range of commercially-available products and services that should be able to meet many requirements related to the ACD mission.

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Exhibit R-4, RDT&E Schedule Profile: PB 2023 Air Force		Date: April 2022
Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 0208088F / AF Defensive Cyberspace Operations	Project (Number/Name) 677823 / AFCERT

FY 2021				FY 2022				FY 2023				FY 2024				FY 2025				FY 2026				FY 2027			
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

<i>Integrated Cyber Aggregation Tool</i>	
Cyberspace Defense Development	████████████████████
Test and Evaluation	████████████████████

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Exhibit R-4A, RDT&E Schedule Details: PB 2023 Air Force		Date: April 2022
Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 0208088F / AF Defensive Cyberspace Operations	Project (Number/Name) 677823 / AFCERT

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<i>Integrated Cyber Aggregation Tool</i>				
Cyberspace Defense Development	1	2021	4	2022
Test and Evaluation	1	2021	4	2022