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

<b>Appropriation/Budget Activity</b> 3600: <i>Research, Development, Test &amp; Evaluation, Air Force I BA 4: Advanced Component Development &amp; Prototypes (ACD&amp;P)</i>	<b>R-1 Program Element (Number/Name)</b> PE 0604414F / <i>Cyber Resiliency of Weapon Systems-ACS</i>
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COST (\$ in Millions)	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	Cost To Complete	Total Cost
Total Program Element	-	69.143	43.372	37.121	0.000	37.121	60.818	62.587	64.007	67.545	Continuing	Continuing
642812: <i>Acquisition/System Security Engineering</i>	-	26.775	20.227	17.137	0.000	17.137	25.291	35.733	36.466	37.785	Continuing	Continuing
642834: <i>Mitigations</i>	-	34.907	17.119	14.261	0.000	14.261	28.539	19.691	20.232	22.186	Continuing	Continuing
642836: <i>Mission Risk Analysis</i>	-	7.461	6.026	5.723	0.000	5.723	6.988	7.163	7.309	7.574	Continuing	Continuing

**A. Mission Description and Budget Item Justification**

This program funds activities at the Cyber Resiliency Office for Weapon Systems (CROWS), which provides cyber capabilities and acquisition support to weapon system programs across the Department of the Air Force (DAF). CROWS increases the cyber resiliency of DAF weapon systems to maintain mission effective capability in a contested cyberspace environment. Its goals are to integrate cyber resiliency into new weapon systems and mitigate critical vulnerabilities in fielded weapon systems. The CROWS' mission aligns with the DAF's cyber survivability approach and strategic guidance, including the National Defense Strategy (NDS). The NDS highlights integrated deterrence as vital to safeguarding U.S. national interests from aggression and strategic attacks by building a resilient, survivable Joint Force in the cyber domain. This strategic guidance requires the Department of Defense to prioritize investments in cyber defense, resilience, and the continued integration of cyber capabilities into the full spectrum of military operations.

This program addresses cyber resiliency to improve survivability and address mission risks in three primary activities to meet these goals. The first activity is to develop systems security engineering tools, techniques, and procedures with associated training and education to build cyber expertise within the acquisition workforce that will develop and upgrade cyber resilient and survivable systems. Notably this includes embedding centrally managed Cyber Focus Team (CFT) members within DAF Program Executive Offices and Program Management Offices and equipping them with skills and resources to enhance the cyber posture of DAF weapon systems. It also includes capabilities to enable effective sharing of cyber intelligence and vulnerability information across multiple acquisition programs and identifying emerging technologies for further development and prototyping to posture DAF weapon systems to counter emerging threats. The second activity is to conduct threat informed weapon systems solution analysis, identify and prioritize vulnerabilities, and identify, develop, and present courses of action to mature the materiel and nonmateriel mitigation trade space. The third activity is to design mitigation strategies and prototype mitigation solutions to critical vulnerabilities, with an emphasis on those vulnerabilities that affect multiple weapon systems.

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, and 0606398F. In PY 2022 \$0.080 million was expended for civilian pay expenses in this program element, and in CY 2023 \$0.000 million is forecasted for civilian pay expenses in this program element.

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<b>Exhibit R-2, RDT&amp;E Budget Item Justification:</b> PB 2024 Air Force	<b>Date:</b> March 2023
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<b>Appropriation/Budget Activity</b> 3600: <i>Research, Development, Test &amp; Evaluation, Air Force I BA 4: Advanced Component Development &amp; Prototypes (ACD&amp;P)</i>	<b>R-1 Program Element (Number/Name)</b> PE 0604414F / <i>Cyber Resiliency of Weapon Systems-ACS</i>
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This effort is in Budget Activity 4, Advanced Component Development and Prototypes (ACD&P), because efforts are necessary to evaluate integrated technologies, representative modes or prototype systems in a high fidelity and realistic operating environment.

<b>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2022</b>	<b>FY 2023</b>	<b>FY 2024 Base</b>	<b>FY 2024 OCO</b>	<b>FY 2024 Total</b>
Previous President's Budget	71.229	44.526	68.668	0.000	68.668
Current President's Budget	69.143	43.372	37.121	0.000	37.121
Total Adjustments	-2.086	-1.154	-31.547	0.000	-31.547
• 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	-2.086	0.000			
• Other Adjustments	0.000	-1.154	-31.547	0.000	-31.547

**Change Summary Explanation**

Decrease in FY 2023 of \$1.154 million is due to an appropriation-wide Federally Funded Research and Development Center reduction.

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2024 Air Force										<b>Date:</b> March 2023		
<b>Appropriation/Budget Activity</b> 3600 / 4					<b>R-1 Program Element (Number/Name)</b> PE 0604414F / <i>Cyber Resiliency of Weapon Systems-ACS</i>				<b>Project (Number/Name)</b> 642812 / <i>Acquisition/System Security Engineering</i>			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2022</b>	<b>FY 2023</b>	<b>FY 2024 Base</b>	<b>FY 2024 OCO</b>	<b>FY 2024 Total</b>	<b>FY 2025</b>	<b>FY 2026</b>	<b>FY 2027</b>	<b>FY 2028</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
642812: <i>Acquisition/System Security Engineering</i>	-	26.775	20.227	17.137	0.000	17.137	25.291	35.733	36.466	37.785	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

**A. Mission Description and Budget Item Justification**

The Acquisition/System Security Engineering (SSE) activity develops Department of the Air Force (DAF) and Department of Defense system security engineering and acquisition security processes, policies, and contracting language, and refines intelligence collection and processes to provide actionable information on cyber threats to the weapons system community. It also encompasses developing cyber resiliency training, manning strategies, and Cyber Focus Teams, which provide cyber acquisition expertise to Program Executive Offices (PEO) to address acquisition workforce gaps in cyber resiliency/security manpower, experience, and knowledge. This project hones workforce expertise and skills required to counter weapon system-unique cyber threats, which exceed the knowledge needed to secure Internet Protocol based systems against traditional network-based cyber threats. Such expertise is critical for acquisition professionals to ensure cyber resiliency/security design tenets are integrated into the weapon system's life cycle. The project also enables rapid response to emerging threats by identifying early Technology Readiness Level (TRL) efforts, via non-traditional industry partners, for accelerated maturation activities leading to quicker fielded cyber resilient technologies for operational users. This project also includes identification, evaluation, and prioritization of emerging cyber techniques, products, and technologies for further development and prototyping to posture DAF weapon systems to counter emerging threats. This activity bolsters DAF cyber resiliency/security by supporting common secure environments for Program Offices to share information on classified weapon system cyber intelligence, threats, and vulnerabilities. Finally, this activity supports Defense Industrial Base data protection efforts and DAF program offices with program protection efforts including hardware assurance, software assurance, supply chain risk management, and other weapon system cybersecurity/resiliency activities as required.

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

	<b>FY 2022</b>	<b>FY 2023</b>	<b>FY 2024</b>
<b>Title:</b> Acquisition/System Security Engineering	26.775	20.227	17.137
<b>Description:</b> Evaluates, transitions, and applies cyber resiliency activities into policy, processes, and products to enhance weapon system cybersecurity.			
<b>FY 2023 Plans:</b> Continue to evolve the Acquisition/SSE requirements, processes, policies, and contracting language to influence cyber resiliency in all phases of the acquisition process. Refine intelligence collection and processes to provide actionable information on cyber threats to the weapons system community. Continue supporting common security environments to enable program offices to collaborate/share information on classified weapon system cyber intelligence threats and vulnerabilities as well as the necessary verification and validation infrastructure (technology, hardware/software modeling and lab resources) to understand, reconcile, and program against emerging cyber resiliency attack vectors. Enable delivery of cyber expertise to PEOs through Cyber Focus Team (CFT) manpower, continue to identify acquisition cyber resiliency training gaps, analyze required knowledge and skill sets,			

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2024 Air Force		<b>Date:</b> March 2023		
<b>Appropriation/Budget Activity</b> 3600 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0604414F / <i>Cyber Resiliency of Weapon Systems-ACS</i>	<b>Project (Number/Name)</b> 642812 / <i>Acquisition/System Security Engineering</i>		
<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>		<b>FY 2022</b>	<b>FY 2023</b>	<b>FY 2024</b>
<p>and develop increasingly more technical and hands on training to support the acquisition workforce. Continue identification, evaluation, and prioritization of emerging cyber techniques, products, and technologies for further development and prototyping to posture DAF weapon systems to counter emerging threats.</p> <p><b><i>FY 2024 Plans:</i></b> Continue to evolve the Acquisition/SSE requirements, processes, policies, and contracting language to influence cyber resiliency in all phases of the acquisition process. Focus and consolidate intelligence collection and processes to provide actionable information on cyber threats to the weapons system community. Transition common security environments to system and mission owners to enable program offices to collaborate/share information on classified weapon system cyber intelligence threats and vulnerabilities as well as the necessary verification and validation infrastructure (technology, hardware/software modeling and lab resources) to understand, reconcile, and program against emerging cyber resiliency attack vectors. Continue delivery of cyber expertise to PEOs through Cyber Focus Team (CFT) manpower, continue to identify acquisition cyber resiliency training gaps, analyze required knowledge and skill sets, and develop increasingly more technical and hands on training to support the acquisition workforce. Identify, evaluate, and prioritize emerging cyber techniques, products, and technologies for further development and prototyping to posture DAF weapon systems to counter emerging threats.</p> <p><b><i>FY 2023 to FY 2024 Increase/Decrease Statement:</i></b> FY 2024 decreased compared to FY 2023 by \$3.090 million. The FY 2024 funding request was reduced by \$3.090 million to account for the availability of prior year execution balances. The request reduction was also due to higher Air Force priorities. In response to the funding decrease, resourcing and primary oversight of common secure environments will be transitioned to system and mission owners. This project will decrease emphasis in identifying, assessing, and supporting low TRL technologies for their potential to form the foundation as an emerging cyber resiliency capability. Furthermore, declined strength will be given to intelligence collection skill development and methods to identify cyber threats and enemy exploitation opportunities to weapon systems.</p>				
<b>Accomplishments/Planned Programs Subtotals</b>		26.775	20.227	17.137
<b>C. Other Program Funding Summary (\$ in Millions)</b>				
N/A				
<b>Remarks</b>				
<b>D. Acquisition Strategy</b>				
When possible, activities in this effort will leverage current competitively-awarded contracts. Additional necessary contracts funded in this program element will be awarded using either competitive or sole source procedures, whichever is most appropriate. The government agency responsible for managing the program is				

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2024 Air Force		<b>Date:</b> March 2023
<b>Appropriation/Budget Activity</b> 3600 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0604414F / <i>Cyber Resiliency of Weapon Systems-ACS</i>	<b>Project (Number/Name)</b> 642812 / <i>Acquisition/System Security Engineering</i>
the Air Force Life Cycle Management Center, Cyber Resiliency Office for Weapon Systems, Wright-Patterson Air Force Base, Ohio and Hanscom Air Force Base, Massachusetts.		

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2024 Air Force												Date: March 2023			
Appropriation/Budget Activity				R-1 Program Element (Number/Name)				Project (Number/Name)							
3600 / 4				PE 0604414F / Cyber Resiliency of Weapon Systems-ACS				642812 / Acquisition/System Security Engineering							
Product Development (\$ in Millions)				FY 2022		FY 2023		FY 2024 Base		FY 2024 OCO		FY 2024 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Common Secure Environment	Various	Various : Various	-	6.250	Nov 2021	2.600	Nov 2022	0.000	Nov 2023	-		0.000	Continuing	Continuing	-
Intel collection skills to identify cyber threats to weapon systems	Various	Various : Various	-	2.000	Dec 2021	2.000	Dec 2022	3.000	Dec 2023	-		3.000	Continuing	Continuing	-
Education and Training	Various	Various : Various	-	1.050	Jan 2022	1.600	Jan 2023	1.500	Jan 2024	-		1.500	Continuing	Continuing	-
Cyber Resiliency Technologies Development	Various	Various : Various	-	9.589	Nov 2021	6.627	Nov 2022	4.381	Nov 2023	-		4.381	Continuing	Continuing	-
<b>Subtotal</b>			-	18.889		12.827		8.881		-		8.881	Continuing	Continuing	N/A
Support (\$ in Millions)				FY 2022		FY 2023		FY 2024 Base		FY 2024 OCO		FY 2024 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
System Security Engineering requirements, policy and guidance documents (DTIC)	Various	Various : Various	-	0.456	Jan 2022	0.456	Jan 2023	0.456	Jan 2024	-		0.456	Continuing	Continuing	-
MITRE	Various	Various : Bedford, MA	-	4.800	Nov 2021	4.944	Nov 2022	5.000	Nov 2023	-		5.000	Continuing	Continuing	-
CMU/SEI	Various	Carnegie Mellon Univ. : Pittsburgh, PA	-	0.800	Dec 2021	0.800	Dec 2022	0.800	Dec 2023	-		0.800	Continuing	Continuing	-
Direct Cite Authority - Civ Pay	Various	Various : Various	-	0.080	Jan 2022	-		-		-		-	Continuing	Continuing	-
<b>Subtotal</b>			-	6.136		6.200		6.256		-		6.256	Continuing	Continuing	N/A



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<b>Exhibit R-4, RDT&amp;E Schedule Profile:</b> PB 2024 Air Force		<b>Date:</b> March 2023
<b>Appropriation/Budget Activity</b> 3600 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0604414F / <i>Cyber Resiliency of Weapon Systems-ACS</i>	<b>Project (Number/Name)</b> 642812 / <i>Acquisition/System Security Engineering</i>

	FY 2022				FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4

<b>Acquisition/System Security Engineering</b>																												
Support common cyber security environments																												
Prototype and deliver enhanced system security engineering processes and products																												
Prototype and deliver cyber security design and contractual requirements																												
Prototype and deliver acquisition cyber intel analysis products and techniques																												
Develop weapon system cyber training																												
Deploy cyber focus teams																												
Prototype advanced cyber resiliency technology																												

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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2024 Air Force		<b>Date:</b> March 2023
<b>Appropriation/Budget Activity</b> 3600 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0604414F / <i>Cyber Resiliency of Weapon Systems-ACS</i>	<b>Project (Number/Name)</b> 642812 / <i>Acquisition/System Security Engineering</i>

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b>Acquisition/System Security Engineering</b>				
Support common cyber security environments	1	2022	4	2023
Prototype and deliver enhanced system security engineering processes and products	1	2022	4	2028
Prototype and deliver cyber security design and contractual requirements	1	2022	4	2028
Prototype and deliver acquisition cyber intel analysis products and techniques	1	2022	4	2028
Develop weapon system cyber training	1	2022	4	2028
Deploy cyber focus teams	1	2022	4	2025
Prototype advanced cyber resiliency technology	1	2022	4	2028

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2024 Air Force										<b>Date:</b> March 2023		
<b>Appropriation/Budget Activity</b> 3600 / 4					<b>R-1 Program Element (Number/Name)</b> PE 0604414F / <i>Cyber Resiliency of Weapon Systems-ACS</i>				<b>Project (Number/Name)</b> 642834 / <i>Mitigations</i>			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2022</b>	<b>FY 2023</b>	<b>FY 2024 Base</b>	<b>FY 2024 OCO</b>	<b>FY 2024 Total</b>	<b>FY 2025</b>	<b>FY 2026</b>	<b>FY 2027</b>	<b>FY 2028</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
642834: <i>Mitigations</i>	-	34.907	17.119	14.261	0.000	14.261	28.539	19.691	20.232	22.186	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

**A. Mission Description and Budget Item Justification**

The Mitigations activity prototypes mitigations to high risk cyber vulnerabilities and recommends a transition path for fielded weapon systems, subsystems, and support systems. As part of the project, the Cyber Resiliency Office for Weapon Systems (CROWS) performs the engineering analysis and partners with program offices for the affected weapon systems to develop a mitigation strategy. The activity also supports the CROWS to lead the non-recurring engineering effort to prototype mitigation solutions that can be fielded on multiple weapon systems and transition the mitigation to programs for implementation and sustainment. Finally, the project enables CROWS to develop a centralized data repository that catalogs proven materiel mitigations for use across Department of the Air Force weapon system program offices to maximize return on investment in the prototyping activity.

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

	<b>FY 2022</b>	<b>FY 2023</b>	<b>FY 2024</b>
<b>Title:</b> Cyber Mitigation Prototyping	34.907	17.119	14.261
<b>Description:</b> Support and evaluate weapon systems' cyber risk assessments to identify, validate, and prioritize mitigations required for cyber vulnerabilities/susceptibilities. Partner with system owners and acquisition Program Offices to develop and transition prototype mitigations.			
<b>FY 2023 Plans:</b> Continue developing prototyping mitigations for cyber vulnerabilities on fielded weapon systems, subsystems, and support systems in realistic, high fidelity environments and identifying threat-informed risks/vulnerabilities. Collaborate with system owners and acquisition program offices to prototype mitigation projects and implement technology transfer of prototyped solutions within the associated acquisition program office. Develop centralized data repository for mitigations addressing weapon system cyber risks and vulnerabilities. Support mitigation integration requirements by translating/mapping threats to enterprise mitigation techniques using mature methodologies for weapon system common reference architectures. Build a strategy to manage OSD's & NSA's requests regarding DAF weapon systems' cyber vulnerability and mitigation activities.			
<b>FY 2024 Plans:</b> Narrow focus on prototyping mitigation opportunities for cyber vulnerabilities on fielded weapon systems, subsystems, and support systems in realistic, high fidelity environments and identifying threat-informed risks/vulnerabilities. Continue to collaborate with system owners and acquisition program offices to prototype mitigation projects and implement technology transfer of prototyped solutions within the associated acquisition program office, concentrating on major weapon systems. Mature centralized data repository for mitigations addressing weapon system cyber risks and vulnerabilities. Continue to support mitigation integration requirements by translating/mapping threats to enterprise mitigation techniques using mature methodologies for weapon system			

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2024 Air Force		<b>Date:</b> March 2023
<b>Appropriation/Budget Activity</b> 3600 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0604414F / <i>Cyber Resiliency of Weapon Systems-ACS</i>	<b>Project (Number/Name)</b> 642834 / <i>Mitigations</i>

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2022</b>	<b>FY 2023</b>	<b>FY 2024</b>
<p>common reference architectures. Demonstrate a strategy to manage OSD's and NSA's requests on DAF weapon systems' cyber vulnerability and mitigation activities.</p> <p><b><i>FY 2023 to FY 2024 Increase/Decrease Statement:</i></b>                      FY 2024 decreased compared to FY 2023 by \$2.858 million. The FY 2024 funding request was reduced by \$2.858 million to account for the availability of prior year execution balances. The request reduction was also due to higher Air Force priorities. Decreased emphasis and support will be given to high-risk mitigation projects and those projects that are able to increase the cyber resiliency of a small number of lower priority weapon systems. The project will hone its focus and selection rigor in supporting mitigations and platform integration activities for high priority weapons that support combatant command Operational Plans (OPLANs). In particular, this project will bias investment in mitigation technologies in weapon systems supporting nuclear deterrence and strike, and long-range conventional strike missions aligning to FY21 NDAA s. 1712 Strategic Cybersecurity Program assessments.</p>			
<b>Accomplishments/Planned Programs Subtotals</b>	34.907	17.119	14.261

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

N/A

**Remarks**

**D. Acquisition Strategy**

When possible, activities in this effort will leverage current competitively-awarded contracts. Additional necessary contracts funded in this program element will be awarded using either competitive or sole source procedures. The government agency responsible for managing the program is the Air Force Life Cycle Management Center, Cyber Resiliency Office for Weapon Systems, Wright-Patterson Air Force Base, Ohio and Hanscom Air Force Base, Massachusetts.

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2024 Air Force												Date: March 2023			
Appropriation/Budget Activity				R-1 Program Element (Number/Name)				Project (Number/Name)							
3600 / 4				PE 0604414F / Cyber Resiliency of Weapon Systems-ACS				642834 / Mitigations							
Product Development (\$ in Millions)				FY 2022		FY 2023		FY 2024 Base		FY 2024 OCO		FY 2024 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Material Solutions for Major Weapon Systems	Various	Various : Various	-	11.567	Jan 2022	3.845	Jan 2023	2.271	Jan 2024	-		2.271	Continuing	Continuing	-
Material Solutions for Subsystems	Various	Various : Various	-	7.963	Dec 2021	2.530	Dec 2022	1.500	Dec 2023	-		1.500	Continuing	Continuing	-
Non-Materiel Solutions	Various	Various : Various	-	3.957	Dec 2021	1.160	Dec 2022	1.000	Dec 2023	-		1.000	Continuing	Continuing	-
Centralized Data Repository	Various	Various : Various	-	2.730	Dec 2021	0.730	Dec 2022	0.500	Dec 2023	-		0.500	Continuing	Continuing	-
<b>Subtotal</b>			-	26.217		8.265		5.271		-		5.271	Continuing	Continuing	N/A
Support (\$ in Millions)				FY 2022		FY 2023		FY 2024 Base		FY 2024 OCO		FY 2024 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
MITRE	Various	Various : Bedford, MA	-	3.000	Jan 2022	3.000	Jan 2023	3.000	Jan 2024	-		3.000	Continuing	Continuing	-
Defense Technical Information Center (DTIC)	Various	Various : Various	-	0.240	Jan 2022	0.240	Jan 2023	0.240	Jan 2024	-		0.240	Continuing	Continuing	-
<b>Subtotal</b>			-	3.240		3.240		3.240		-		3.240	Continuing	Continuing	N/A
Management Services (\$ in Millions)				FY 2022		FY 2023		FY 2024 Base		FY 2024 OCO		FY 2024 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
A&AS, Travel, Government Purchase Card	Various	Various : Various	-	5.450	Dec 2021	5.614	Dec 2022	5.750	Dec 2023	-		5.750	Continuing	Continuing	-
<b>Subtotal</b>			-	5.450		5.614		5.750		-		5.750	Continuing	Continuing	N/A
<b>Project Cost Totals</b>			-	34.907		17.119		14.261		-		14.261	Continuing	Continuing	N/A



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<b>Exhibit R-4, RDT&amp;E Schedule Profile:</b> PB 2024 Air Force		<b>Date:</b> March 2023
<b>Appropriation/Budget Activity</b> 3600 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0604414F / <i>Cyber Resiliency of Weapon Systems-ACS</i>	<b>Project (Number/Name)</b> 642834 / <i>Mitigations</i>

FY 2022				FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028			
1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4

<b>Mitigations</b>																												
Prototype cyber mitigations on known cyber vulnerabilities																												
Identify transition plan for tested mitigations to known cyber vulnerabilities																												
Centralized Data Repository																												

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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2024 Air Force		<b>Date:</b> March 2023
<b>Appropriation/Budget Activity</b> 3600 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0604414F / <i>Cyber Resiliency of Weapon Systems-ACS</i>	<b>Project (Number/Name)</b> 642834 / <i>Mitigations</i>

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b>Mitigations</b>				
Prototype cyber mitigations on known cyber vulnerabilities	1	2022	4	2028
Identify transition plan for tested mitigations to known cyber vulnerabilities	1	2022	4	2028
Centralized Data Repository	1	2022	4	2028

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2024 Air Force										<b>Date:</b> March 2023		
<b>Appropriation/Budget Activity</b> 3600 / 4					<b>R-1 Program Element (Number/Name)</b> PE 0604414F / <i>Cyber Resiliency of Weapon Systems-ACS</i>				<b>Project (Number/Name)</b> 642836 / <i>Mission Risk Analysis</i>			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2022</b>	<b>FY 2023</b>	<b>FY 2024 Base</b>	<b>FY 2024 OCO</b>	<b>FY 2024 Total</b>	<b>FY 2025</b>	<b>FY 2026</b>	<b>FY 2027</b>	<b>FY 2028</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
642836: <i>Mission Risk Analysis</i>	-	7.461	6.026	5.723	0.000	5.723	6.988	7.163	7.309	7.574	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

**A. Mission Description and Budget Item Justification**

The Mission Risk Analysis project discovers and analyzes cyber susceptibilities/vulnerabilities to Department of the Air Force (DAF) weapon systems and characterizes their impacts based on mission risk. The project promotes the enhancement of cyber discovery methodologies and capabilities within the DAF. The focus is on assessing the gaps and seams that exist between defined weapon system boundaries and within areas that are not assigned to specific weapon system program offices. This activity builds upon existing efforts that identify and mitigate cyber vulnerabilities, and does not duplicate similar ongoing efforts or conduct redundant assessments on systems that have already been evaluated. The Cyber Focus Team (CFT) members developed under the Acquisition/System Security Engineering activity, Project 642812, contribute diverse assessment data sets from various weapon system platforms to enhance the CROWS' ability to identify and validate vulnerabilities across the fielded fleet. This activity disseminates cyber risk information to inform acquisition decisions, provides feedback to focus future assessments, and also feeds into the Mitigations activity under Project 642834.

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

	<b>FY 2022</b>	<b>FY 2023</b>	<b>FY 2024</b>
<b>Title:</b> Cyber Mission Risk Analysis	7.461	6.026	5.723
<b>Description:</b> Discovers, analyzes, and coordinates information sharing of mission risk and risk discovery activities for DAF weapon systems.			
<b>FY 2023 Plans:</b> Coordinate cyber vulnerability assessments and develop capabilities to provide and support focused assessments where required. Continue developing solutions to find, consolidate, analyze, assess, and share cyber vulnerabilities through an enterprise-level data analysis capability and data strategy. Provide subject matter expertise through the CROWS' Cyber Resiliency Support Team (CRST) to augment DoD cyber vulnerability assessments and ongoing discovery tasks.			
<b>FY 2024 Plans:</b> Narrow coordination of cyber vulnerability assessments and validate, mature, and continue development of capabilities to provide focused assessments where required. Refine developing solutions to find, consolidate, analyze, assess, and share cyber vulnerabilities through an enterprise-level data analysis capability and data strategy. Continue to provide subject matter expertise through the Cyber Resiliency Support Team (CRST) to augment DoD cyber vulnerability assessments and ongoing discovery tasks.			
<b>FY 2023 to FY 2024 Increase/Decrease Statement:</b>			

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2024 Air Force		<b>Date:</b> March 2023
<b>Appropriation/Budget Activity</b> 3600 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0604414F / <i>Cyber Resiliency of Weapon Systems-ACS</i>	<b>Project (Number/Name)</b> 642836 / <i>Mission Risk Analysis</i>

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2022</b>	<b>FY 2023</b>	<b>FY 2024</b>
FY 2024 decreased compared to FY 2023 by \$0.303 million. The FY 2024 funding request was reduced by \$0.303 million to account for the availability of prior year execution balances. The request reduction was also due to higher Air Force priorities. This project will decrease emphasis and availability of CRST support to augment cyber vulnerability assessments.			
<b>Accomplishments/Planned Programs Subtotals</b>	7.461	6.026	5.723

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

N/A

**Remarks**

**D. Acquisition Strategy**

When possible, activities in this effort will leverage current competitively-awarded contracts. Additional necessary contracts funded in this program element will be awarded using either competitive or sole source procedures, whichever is most appropriate. The government agency responsible for managing the program is the Air Force Life Cycle Management Center, Cyber Resiliency Office for Weapon Systems, Wright-Patterson Air Force Base, Ohio and Hanscom Air Force Base, Massachusetts.



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<b>Exhibit R-4, RDT&amp;E Schedule Profile:</b> PB 2024 Air Force		<b>Date:</b> March 2023
<b>Appropriation/Budget Activity</b> 3600 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0604414F / <i>Cyber Resiliency of Weapon Systems-ACS</i>	<b>Project (Number/Name)</b> 642836 / <i>Mission Risk Analysis</i>

FY 2022				FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028			
1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4

<b><i>Mission Risk Analysis</i></b>	
Develop, institutionalize and utilize a Data Capture Repository and Analytics Team (DCRA)	
Execute risk analysis and discovery on weapons systems and across mission areas. Leverage and augment existing and emerging assessment environments and tools.	
Engineer solution candidates for reducing cyber risk with DAF weapon systems.	

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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2024 Air Force		<b>Date:</b> March 2023
<b>Appropriation/Budget Activity</b> 3600 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0604414F / <i>Cyber Resiliency of Weapon Systems-ACS</i>	<b>Project (Number/Name)</b> 642836 / <i>Mission Risk Analysis</i>

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b><i>Mission Risk Analysis</i></b>				
Develop, institutionalize and utilize a Data Capture Repository and Analytics Team (DCRA)	1	2022	4	2028
Execute risk analysis and discovery on weapons systems and across mission areas. Leverage and augment existing and emerging assessment environments and tools.	1	2022	4	2028
Engineer solution candidates for reducing cyber risk with DAF weapon systems.	1	2022	4	2028