

**UNCLASSIFIED**

**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 7: Operational Systems Development</i>	<b>R-1 Program Element (Number/Name)</b> PE 0208087F / <i>Distributed Cyber Warfare Operations</i>
--	---

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	-	68.152	76.425	50.122	0.000	50.122	24.521	27.111	27.664	28.666	Continuing	Continuing
674543: <i>AF Offensive Cyber Operations</i>	-	68.152	76.425	50.122	0.000	50.122	24.521	27.111	27.664	28.666	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

**Note**  
In FY 2024, 36.480M from PE 0208087F, Distributed Cyber Warfare Operations, Project 674543, AF Offensive Cyber Operations efforts for foundational tools were transferred to PE 0306250JCY, Cyber Operations Technology Support, Project CY06, Cyber Weapons/Tools:AF Payloads, in order to satisfy Congressional requirements in the FY22 NDAA, Section 1507, transferring responsibilities for the planning, programming, budgeting, and execution of the resources to USCYBERCOM.

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

Distributed Cyber Warfare Operations (DCWO) conducts Research, Development, Testing and Evaluation (RDT&E) leading to operations-ready cyberspace superiority capabilities including the transition of efforts from laboratory, industry, and academia via studies, accelerated prototyping, and technology demonstrations. DCWO consists of a portfolio of programs and projects providing offensive cyberspace capabilities. DCWO effectiveness comes from balancing acquisition-related RDT&E efforts within four Air Force capability areas required for cyber warfare operations: Platform, Access, Infrastructure, and Payloads/Weapons. The DCWO portfolio fields these products and services across multiple mission areas to deliver cyber effects in support of Combatant Commanders. Platform solutions provide user interface, controls, and channels; Access and Infrastructure solutions provide connectivity; and Payloads solutions provide cyber tools in support of offensive cyber operations (OCO).

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 FY22 0.300M was expended for civilian pay expenses in this program element, and in FY23 3.431M is forecasted for civilian pay expenses in this program element.

In FY 2024, 36.480 million from PE 0208087F, Distributed Cyber Warfare Operations, Project 674543, AF Offensive Cyber Operations efforts for foundational tools were transferred to PE 0306250JCY, Cyber Operations Technology Support, Project CY06, Cyber Weapons/Tools:AF Payloads, in order to satisfy Congressional requirements in the FY22 NDAA, Section 1507, transferring responsibilities for the planning, programming, budgeting, and execution of the resources to USCYBERCOM.

The FY24 funding request was reduced by 4.300 million to account for the availability of prior year execution balances.

FY23 funding was reduced by 0.167 million for Federally Funded Research and Development Center (FFRDC) costs.

**UNCLASSIFIED**

<b>Exhibit R-2, RDT&amp;E Budget Item Justification:</b> PB 2024 Air Force	<b>Date:</b> March 2023
--	-------------------------

<b>Appropriation/Budget Activity</b> 3600: <i>Research, Development, Test &amp; Evaluation, Air Force I BA 7: Operational Systems Development</i>	<b>R-1 Program Element (Number/Name)</b> PE 0208087F / <i>Distributed Cyber Warfare Operations</i>
--	---

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>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	72.487	76.592	37.199	0.000	37.199
Current President's Budget	68.152	76.425	50.122	0.000	50.122
Total Adjustments	-4.335	-0.167	12.923	0.000	12.923
• 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	-2.000	0.000			
• SBIR/STTR Transfer	-2.335	0.000			
• Other Adjustments	0.000	-0.167	12.923	0.000	12.923

<b>C. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2022</b>	<b>FY 2023</b>	<b>FY 2024</b>
<b>Title:</b> AF Cyber Mission Platform (CMP)	16.767	11.170	9.263
<p><b>Description:</b> Platform capabilities primarily consist of the USAF Cyber Mission Platform (CMP) program. CMP is an ACAT III program of record that provides a modular, configurable framework for cyberspace operations. The CMP framework is currently being applied to offensive cyber operations and may also be applied to defensive cyber operations in the future as prioritized by CMP stakeholders. CMP uses an Agile acquisition strategy that allows the USAF to dynamically prioritize the delivery of operational capabilities. The CMP program develops capability enhancements on a regular cadence and delivers them to operations based on operational need and acceptance timelines. The program office will posture to work RDT&amp;E efforts on core CMP capabilities until the USCYBERCOM Joint Cyber Access Platform (JCAP) is fielded for operations. Moreover, the program office will continue to conduct DCWO development activities to integrate unique, Air Force-specific, platform-related capabilities in support of cyber missions. Relevant components of the former Converging Universal Battlespace Enabler (CUBE) architecture will continue as required by DCWO customers.</p> <p><b>FY 2023 Plans:</b></p> <ul style="list-style-type: none"> <li>- Continue CMP enhancements to satisfy prioritized requirements from USAF Distributed Cyber Warfare Operations (DCWO) operational customers.</li> <li>- Continue to execute a continuous delivery program.</li> </ul>			

**UNCLASSIFIED**

<b>Exhibit R-2, RDT&amp;E Budget Item Justification:</b> PB 2024 Air Force		<b>Date:</b> March 2023		
<b>Appropriation/Budget Activity</b> 3600: <i>Research, Development, Test &amp; Evaluation, Air Force I BA 7: Operational Systems Development</i>		<b>R-1 Program Element (Number/Name)</b> PE 0208087F / <i>Distributed Cyber Warfare Operations</i>		
<b>C. Accomplishments/Planned Programs (\$ in Millions)</b>		<b>FY 2022</b>	<b>FY 2023</b>	<b>FY 2024</b>
<p>- Decompose the Converging Universal Battlespace Enabler (CUBE) architecture into more flexible and manageable modular components to better support multiple DCWO customers and their associated missions.</p> <p><b>FY 2024 Plans:</b></p> <ul style="list-style-type: none"> <li>- Will continue CMP enhancements to satisfy prioritized requirements from USAF Distributed Cyber Warfare Operations (DCWO) operational customers.</li> <li>- Will continue to execute a continuous delivery program.</li> <li>- Will decompose the Converging Universal Battlespace Enabler (CUBE) architecture into more flexible and manageable modular components to better support multiple DCWO customers and their associated missions.</li> </ul> <p><b>FY 2023 to FY 2024 Increase/Decrease Statement:</b> Decrease due to reduced development work on CMP in anticipation of moving to JCAP.</p>				
<p><b>Title:</b> Access/Infrastructure</p> <p><b>Description:</b> Access and Infrastructure capabilities provide connectivity and required infrastructure to conduct offensive cyberspace operations (OCO). USAF OCO access and infrastructure solutions are developed and fielded through the DCWO program office and also leverage industry and other Government/non-Government mission partner applications and programs.</p> <p>Hydra was changed to Spectral Raptor in FY24.</p> <p><b>FY 2023 Plans:</b></p> <ul style="list-style-type: none"> <li>- Continue to develop and field Air Force-unique connectivity and required infrastructure across multiple spectrums leveraging industry and other Government/non-Government mission partner applications and programs.</li> <li>- Continue to develop and transition Offensive Cyber Operations (OCO) quick reaction capabilities for next-generation DCWO weapon system supporting requirements from OCO missions.</li> </ul> <p><b>FY 2024 Plans:</b></p> <ul style="list-style-type: none"> <li>- Will continue to develop and field Air Force-unique connectivity and required infrastructure across multiple spectrums leveraging industry and other Government/non-Government mission partner applications and programs.</li> <li>- Will continue to develop and transition Offensive Cyber Operations (OCO) quick reaction capabilities for next-generation DCWO weapon system supporting requirements from OCO missions.</li> </ul> <p><b>FY 2023 to FY 2024 Increase/Decrease Statement:</b> Increase due incorporation of additional Spectral Raptor program requirements, to include consolidation of disparate technical baselines, and additional support to AF offensive cyber data analytics.</p>		14.574	21.602	40.859
<b>Title:</b> Payloads		36.811	43.653	0.000

**UNCLASSIFIED**

<b>Exhibit R-2, RDT&amp;E Budget Item Justification:</b> PB 2024 Air Force	<b>Date:</b> March 2023
--	-------------------------

<b>Appropriation/Budget Activity</b> 3600: <i>Research, Development, Test &amp; Evaluation, Air Force I BA 7: Operational Systems Development</i>	<b>R-1 Program Element (Number/Name)</b> PE 0208087F / <i>Distributed Cyber Warfare Operations</i>
--	---

<b>C. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2022</b>	<b>FY 2023</b>	<b>FY 2024</b>
<p><b>Description:</b> Payloads and Weapons capabilities consist of cyber tools and payloads leveraging industry and other Government/non-Government mission partner-developed applications and programs.</p> <p>In FY 2024, 36.480M from PE 0208087F, Distributed Cyber Warfare Operations, Project 674543, AF Offensive Cyber Operations efforts for foundational tools were transferred to PE 0306250JCY, Cyber Operations Technology Support, Project CY06, Cyber Weapons/Tools:AF Payloads, in order to satisfy Congressional requirements in the FY22 NDAA, Section 1507, transferring responsibilities for the planning, programming, budgeting, and execution of the resources to USCYBERCOM.</p> <p>Payloads - Neptune Rumble was changed to Payloads in FY23.</p> <p><b>FY 2023 Plans:</b></p> <ul style="list-style-type: none"> <li>- Continue the development of cyber tools and exploits by leveraging industry and other government/non-Government mission partnered developed applications and programs.</li> <li>- Continue to expand USCYBERCOM-funded efforts to produce prioritized family of foundational tools.</li> </ul> <p><b>FY 2024 Plans:</b></p> <p>In FY 2024, 36.480M from PE 0208087F, Distributed Cyber Warfare Operations, Project 674543, AF Offensive Cyber Operations efforts for foundational tools were transferred to PE 0306250JCY, Cyber Operations Technology Support, Project CY06, Cyber Weapons/Tools:AF Payloads, in order to satisfy Congressional requirements in the FY22 NDAA, Section 1507, transferring responsibilities for the planning, programming, budgeting, and execution of the resources to USCYBERCOM.</p> <p><b>FY 2023 to FY 2024 Increase/Decrease Statement:</b> Decrease due to funds being transferred to USCC under Enhanced Budget Control.</p>			
<b>Accomplishments/Planned Programs Subtotals</b>	68.152	76.425	50.122

<b>D. Other Program Funding Summary (\$ in Millions)</b>											
<b>Line Item</b>	<b>FY 2022</b>	<b>FY 2023</b>	<b>FY 2024</b>	<b>FY 2024</b>	<b>FY 2024</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>
			<b>Base</b>	<b>OCO</b>	<b>Total</b>						
• OPAF 03 834320: C3 Countermeasures	16.848	29.051	30.671	-	30.671	12.068	2.885	2.961	3.020	0.000	97.504

**Remarks**

**UNCLASSIFIED**

<b>Exhibit R-2, RDT&amp;E Budget Item Justification:</b> PB 2024 Air Force		<b>Date:</b> March 2023
<b>Appropriation/Budget Activity</b> 3600: <i>Research, Development, Test &amp; Evaluation, Air Force I BA 7: Operational Systems Development</i>	<b>R-1 Program Element (Number/Name)</b> PE 0208087F / <i>Distributed Cyber Warfare Operations</i>	

**E. Acquisition Strategy**

The Distributed Cyber Warfare Operations program office will utilize Concept, Development, Risk Management, Production, or Deployment Plans as part of a streamlined 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. Distributed Cyber Warfare Operations will utilize both new and existing contractual vehicles, such as Government-Wide Acquisition Contract (GWAC) vehicles (Alliant, Encore II, Solutions for Enterprise-Wide Procurement IV (SEWP IV)), and General Services Administration (GSA) Federal Supply Schedules and a Cyber Indefinite Delivery Indefinite Quantity (IDIQ) contract. 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 Offensive Cyberspace Operations. These multiple-award contractual vehicles have already met the statutory requirements of the Competition in Contracting Act (CICA), which requires a fair opportunity to all contract holders, in accordance with Federal Acquisition Regulation (FAR) 16.505, unless an exception to fair opportunity applies.

**UNCLASSIFIED**

**Exhibit R-3, RDT&E Project Cost Analysis: PB 2024 Air Force** **Date:** March 2023

<b>Appropriation/Budget Activity</b> 3600 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0208087F / <i>Distributed Cyber Warfare Operations</i>	<b>Project (Number/Name)</b> 674543 / <i>AF Offensive Cyber Operations</i>
--	---	---

<b>Product Development (\$ in Millions)</b>				FY 2022		FY 2023		FY 2024 Base		FY 2024 OCO		FY 2024 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			
Platform Development	Various	Various : Various	-	12.500	Nov 2021	7.640	Nov 2022	7.921	Nov 2023	-		7.921	Continuing	Continuing	-
Access Development	Various	Various : Various	-	11.476	Nov 2021	18.025	Nov 2022	27.661	Nov 2023	-		27.661	Continuing	Continuing	-
Payload Development	Various	Various : Various	-	30.920	Nov 2021	36.020	Nov 2022	0.000		-		0.000	Continuing	Continuing	-
<b>Subtotal</b>			-	54.896		61.685		35.582		-		35.582	Continuing	Continuing	N/A

<b>Support (\$ in Millions)</b>				FY 2022		FY 2023		FY 2024 Base		FY 2024 OCO		FY 2024 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			
DCA - AF Offensive Cyber Operations Development	Allot	USAF : Hanscom AFB, MA	-	0.494	Oct 2021	2.400	Oct 2022	2.200	Oct 2023	-		2.200	Continuing	Continuing	-
<b>Subtotal</b>			-	0.494		2.400		2.200		-		2.200	Continuing	Continuing	N/A

<b>Test and Evaluation (\$ in Millions)</b>				FY 2022		FY 2023		FY 2024 Base		FY 2024 OCO		FY 2024 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 and Evaluation	PO	47 CTS : San Antonio, TX	-	3.100	Dec 2021	2.827	Dec 2022	2.590	Dec 2023	-		2.590	Continuing	Continuing	-
<b>Subtotal</b>			-	3.100		2.827		2.590		-		2.590	Continuing	Continuing	N/A

<b>Management Services (\$ in Millions)</b>				FY 2022		FY 2023		FY 2024 Base		FY 2024 OCO		FY 2024 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			
PSC - Acquisition Support (Various)	Various	Various : San Antonio, TX	-	9.662	Nov 2021	9.513	Nov 2022	9.750	Nov 2023	-		9.750	Continuing	Continuing	-
<b>Subtotal</b>			-	9.662		9.513		9.750		-		9.750	Continuing	Continuing	N/A

**UNCLASSIFIED**

<b>Exhibit R-3, RDT&amp;E Project Cost Analysis: PB 2024 Air Force</b>								<b>Date: March 2023</b>					
<b>Appropriation/Budget Activity</b> 3600 / 7				<b>R-1 Program Element (Number/Name)</b> PE 0208087F / <i>Distributed Cyber Warfare Operations</i>				<b>Project (Number/Name)</b> 674543 / <i>AF Offensive Cyber Operations</i>					
	<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>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
<b>Project Cost Totals</b>	-	68.152		76.425		50.122		-		50.122	Continuing	Continuing	N/A

**Remarks**  
 In FY 2024, 36.480M from PE 0208087F, Distributed Cyber Warfare Operations, Project 674543, AF Offensive Cyber Operations efforts for foundational tools were transferred to PE 0306250JCY, Cyber Operations Technology Support, Project CY06, Cyber Weapons/Tools:AF Payloads, in order to satisfy Congressional requirements in the FY22 NDAA, Section 1507, transferring responsibilities for the planning, programming, budgeting, and execution of the resources to USCYBERCOM.

**UNCLASSIFIED**

<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 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0208087F / <i>Distributed Cyber Warfare Operations</i>	<b>Project (Number/Name)</b> 674543 / <i>AF Offensive Cyber Operations</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>Cyber Mission Platform (CMP)</b>																												
Platforms/On Network																												
<b>Access</b>																												
Spectral Raptor																												
Infrastructure/Chimera																												
Infrastructure/Cross Domain																												
Telephony Network Access/Network Attack																												
Data Analytics/Kraken																												
<b>Payloads</b>																												
Payloads - Neptune Rumble																												

**UNCLASSIFIED**

<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 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0208087F / <i>Distributed Cyber Warfare Operations</i>	<b>Project (Number/Name)</b> 674543 / <i>AF Offensive Cyber Operations</i>

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b>Cyber Mission Platform (CMP)</b>				
Platforms/On Network	1	2022	4	2025
<b>Access</b>				
Spectral Raptor	1	2022	4	2028
Infrastructure/Chimera	1	2022	4	2028
Infrastructure/Cross Domain	1	2022	4	2028
Telephony Network Access/Network Attack	1	2022	4	2028
Data Analytics/Kraken	1	2022	4	2028
<b>Payloads</b>				
Payloads - Neptune Rumble	1	2022	4	2023

**Note**

Platform:

- Cyber Mission Platform (CMP) delivers increments on a quarterly basis and supports On Network Operations.

Access and Infrastructure:

- SPECTRAL RAPTOR (formerly Hydra) and other Off Network Operations efforts are classified and information can be provided on a need to know basis.
- Network Attack System (NAS) and other Telephony Network Operations projects are classified and information can be provided on a need to know basis.
- Mission IT, Cross Domain, KRAKEN and other Infrastructure efforts are classified and information can be provided on a need to know basis.

Payloads:

- NEPTUNE RUMBLE and other Payloads/Weapons projects are classified and will be provided on a need to know basis.