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**Exhibit R-2, RDT&E Budget Item Justification:** PB 2025 Air Force **Date:** March 2024

<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 0305221F / <i>Network-Centric Collaborative Targeting</i>
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COST (\$ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
Total Program Element	-	17.564	12.496	8.952	0.000	8.952	9.095	9.283	9.619	9.807	Continuing	Continuing
675197: <i>NCCT Core Technology</i>	-	17.564	12.496	8.952	0.000	8.952	9.095	9.283	9.619	9.807	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

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

Network Centric Collaborative Targeting (NCCT) is the Department of the Air Force's (DAF) program of record performing platform agnostic, tactical, cooperative geo-location against time sensitive targets. At its core, NCCT is a cloud-based, Joint, multi-intelligence (multi-INT) sensor network which provides the warfighter fused target locations and enables sensor command and control (C2) through machine-to-machine interfaces.

Operationally, NCCT is currently deployed on a variety of DAF aircraft, the DCGS, and other DoD assets. NCCT's utilization of intelligent sensor mesh networks, multi-INT fusion, and its cross-domain information sharing and sensor C2 are key contributions to the Sensing Grid's sensing, sense making, integration, and global orchestration thrusts.

NCCT research and development funding supports development of the NCCT message set, network management systems, and technology modernization specific to network and fusion architecture design. Development funds also support software modifications required for development and integration with new and emerging platforms, and incorporation of new data fusion algorithms while satisfying DoD standards and Information Assurance requirements.

Specifically, FY 2025 funding will be dedicated to no more than one major capability release and one minor release, which are planned to include the following capabilities: 1) integration with new and emerging platforms, 2) optimization of automation gained through synaptic intelligence-based AI/ML, 3) upgrading of fusion engines to leverage classified techniques, and 4) fielding of "NCCT Fusion Forward" with the RC-135 fleet.

FY 2024 funding is focused on continued cloud utilization, the testing and deployment of a new user interface with a modernized and automated front end and initiate a study to integrate publicly available information (PAI). Finally, FY 2024 funding will continue National to Tactical tip and cue integration, and complete airborne moving target indication (AMTI) to SIGINT data fusion algorithms, while preserving rapid software delivery based on continuous user feedback.

FY 2023 funding was dedicated to one major capability release, and two minor releases. These releases continued development of new and emerging multi-INT use cases, integration with additional platforms such as Over the Horizon Radar (OTH-R), Joint Interface Capabilities Document - ELINT (JEL) and USAF/RAAF E-7 Wedgetail. FY 2023 also started development of automation gained through synaptic intelligence-based AI/ML, "fusion on the edge" development with the RC-135 fleet, and preserved rapid software delivery capability based on continuous user feedback. Funding also continued cloud utilization efforts and initialized a User Interface modernization effort. Finally, FY 2023 funding continued development on airborne moving target indication (AMTI) to SIGINT data fusion algorithms, and supported rapid iteration across the enterprise with Joint All-Domain Command and Control (JADC2) platforms/systems, enabling the Air Force Sensing Grid.

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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 FY 2023 \$0M was expended for civilian pay expenses in this program element, and in FY 2024 \$0M is forecasted for civilian pay expenses in this program element.

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 2023</b>	<b>FY 2024</b>	<b>FY 2025 Base</b>	<b>FY 2025 OCO</b>	<b>FY 2025 Total</b>
Previous President's Budget	17.564	12.496	8.936	0.000	8.936
Current President's Budget	17.564	12.496	8.952	0.000	8.952
Total Adjustments	0.000	0.000	0.016	0.000	0.016
• 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	0.000	0.000			
• Other Adjustments	0.000	0.000	0.016	0.000	0.016

<b>C. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2023</b>	<b>FY 2024</b>	<b>FY 2025 Base</b>	<b>FY 2025 OCO</b>	<b>FY 2025 Total</b>
<b>Title:</b> Core Technology	17.564	12.496	8.952	0.000	8.952
<b>Description:</b> Accomplishments and planned efforts include development and upgrade of NCCT; technical support to users, fielding new user capabilities, and management activities					
<b>FY 2024 Plans:</b> FY 2024 funding is dedicated to at least one major capability release and two minor releases, which are planned to include the following capabilities:					
<ul style="list-style-type: none"> <li>- Integration with new and emerging platforms such as THRESHER &amp; USAF/RAAF E-7 Wedgetail</li> <li>- Continued refinement of OTHR integration</li> <li>- Implementation of automation gained through synaptic intelligence-based AI/ML</li> <li>- Refine, through iterative development, NCCT's "Fusion Forward" capability with the RC-135 operational</li> </ul>					

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

	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
community at multiple test events and exercises. - Testing and initial deployment of a new user interface (UI) with a modernized and automated front end - Initiates a study to integrate publicly available information (PAI) - Continues National to Tactical tip and cue integration - Completes airborne moving target indication (AMTI) to SIGINT data fusion algorithms  All while preserving rapid software delivery based on continuous user feedback.  <b>FY 2025 Base Plans:</b> FY 2025 funding will be dedicated to one major capability release and one minor release, which are planned to include the following capabilities:  - Will continue integration with new and emerging platforms - Will optimize automation gained through synaptic intelligence-based AI/ML - Will upgrade fusion engines to leverage classified techniques and inputs - Will field NCCT's "Fusion Forward" capability with the RC-135.  Finally, FY 2025 funding will preserve rapid software delivery based on continuous user feedback and emerging requirements.  <b>FY 2025 OCO Plans:</b> N/A  <b>FY 2024 to FY 2025 Increase/Decrease Statement:</b> FY2025 funding was reduced to support higher AF priorities. FY2025 will continue FY2024 development areas at reduced capability deployment rates.					
<b>Accomplishments/Planned Programs Subtotals</b>	17.564	12.496	8.952	0.000	8.952

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

	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	<u>Cost To Complete</u>	<u>Total Cost</u>
• OPAF 03 Line Item 832070: <i>Intelligence Comm Equipment</i>	1.889	3.405	2.838	-	2.838	3.472	3.601	3.679	3.752	Continuing	Continuing

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<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 0305221F / <i>Network-Centric Collaborative Targeting</i>
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**D. Other Program Funding Summary (\$ in Millions)**

<u>Line Item</u>	<u>FY 2023</u>	<u>FY 2024</u>	<u>FY 2025</u> <u>Base</u>	<u>FY 2025</u> <u>OCO</u>	<u>FY 2025</u> <u>Total</u>	<u>FY 2026</u>	<u>FY 2027</u>	<u>FY 2028</u>	<u>FY 2029</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
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**Remarks**

**E. Acquisition Strategy**

The 645 AESG, Wright Patterson AFB OH, manages the Cost Plus Fixed Fee (CPFF) contracts used for the agile software development of NCCT Core Technology. 645 AESG will develop NCCT software on common hardware for systems and platforms designated to field this ISR capability. Individual platform program management offices may contract directly with their prime contractors or through the 645 AESG for integration of NCCT capabilities on their respective systems and platforms.

Due to the rapidly changing threat environment, NCCT's DevSecOps and Agile software processes, and operational demand from platforms leveraging NCCT capabilities, the acquisition program manager has the authority to redirect funding as necessary to meet currently stated and/or emerging/evolving/urgent operational requirements. Activities encompassed within PME upgrade may include, but not limited to, assembly, test and checkout; mission system upgrades, external communications upgrades, software development, systems engineering, and program support costs (PSC).

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**Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Air Force** **Date:** March 2024

<b>Appropriation/Budget Activity</b> 3600 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0305221F / <i>Network-Centric Collaborative Targeting</i>	<b>Project (Number/Name)</b> 675197 / <i>NCCT Core Technology</i>
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<b>Product Development (\$ in Millions)</b>				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 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			
Core Technology Development (Agile)	SS/CPFF	L-3 ComCept : Rockwall, TX	-	9.328	Mar 2023	5.505	Oct 2023	5.000	Oct 2024	-		5.000	Continuing	Continuing	-
UI/UX development	SS/FFP	Anduril : Los Angeles, CA	-	4.000	Jun 2023	3.000	Jun 2024	2.134	Jun 2025	-		2.134	Continuing	Continuing	-
AI/ML Development	SS/ Various	NaraLogics : Boston, MA	-	1.591	Aug 2023	1.300	Aug 2024	1.200	Aug 2025	-		1.200	Continuing	Continuing	-
<b>Subtotal</b>			-	14.919		9.805		8.334		-		8.334	Continuing	Continuing	N/A

<b>Support (\$ in Millions)</b>				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 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			
Cloud Hosting Services	Reqn	16th AF M2O : JBSAL, TX	-	1.052	Jul 2023	1.052	Jul 2024	-		-		-	Continuing	Continuing	-
Cloud Migration	SS/ Various	CACI : Sarasota, FL	-	1.493	May 2023	1.539	May 2024	0.500	May 2025	-		0.500	Continuing	Continuing	-
<b>Subtotal</b>			-	2.545		2.591		0.500		-		0.500	Continuing	Continuing	N/A

<b>Management Services (\$ in Millions)</b>				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 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	Allot	645 AESG : Dayton, OH	-	0.100	Mar 2023	0.100	Mar 2024	0.118	Mar 2025	-		0.118	Continuing	Continuing	-
<b>Subtotal</b>			-	0.100		0.100		0.118		-		0.118	Continuing	Continuing	N/A

			Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
<b>Project Cost Totals</b>			-	17.564	12.496	8.952	-	8.952	Continuing	Continuing	N/A

**Remarks**

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<b>Exhibit R-4, RDT&amp;E Schedule Profile:</b> PB 2025 Air Force		<b>Date:</b> March 2024
<b>Appropriation/Budget Activity</b> 3600 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0305221F / <i>Network-Centric Collaborative Targeting</i>	<b>Project (Number/Name)</b> 675197 / <i>NCCT Core Technology</i>

	FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
<b>UI/UX Development</b>																												
Lattice Operating System Integration																												
<b>AI/ML Development</b>																												
Synaptic Intelligence Platform Development & Integration																												
<b>Core Development</b>																												
Major Release - Capability Development, Test, Integration																												
Minor Release - Development, Test, Integration, Security Updates																												

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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2025 Air Force		<b>Date:</b> March 2024
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Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b>UI/UX Development</b>				
Lattice Operating System Integration	1	2023	4	2025
<b>AI/ML Development</b>				
Synaptic Intelligence Platform Development & Integration	1	2023	4	2029
<b>Core Development</b>				
Major Release - Capability Development, Test, Integration	1	2023	4	2029
Minor Release - Development, Test, Integration, Security Updates	1	2023	4	2029