Exhibit R-2, RDT&E Budget Item Justification: PB 2024 Air Force											Date: March 2023	
Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force* / BA 7: *Operational Systems Development*					R-1 Program Element (Number/Name) PE 0305221F / *Network-Centric Collaborative Targeting*							
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	-	17.224	17.564	12.496	0.000	12.496	8.936	9.079	9.266	9.601	Continuing	Continuing
675197: *NCCT Core Technology*	-	17.224	17.564	12.496	0.000	12.496	8.936	9.079	9.266	9.601	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Network Centric Collaborative Targeting (NCCT) is the Air Force program of record for platform agnostic, cooperative geo-location and is responsible for developing the fusion engine supporting the horizontal and/or vertical integration of Joint Intelligence, Surveillance and Reconnaissance (ISR) sensor systems. The result of this integration is a cloud-based, multi-intelligence (multi-INT) sensor network.

Operationally, NCCT provides a tactical, collaborative, real-time multi-INT geolocation capability which produces fused composite tracks on high value, time-sensitive targets for immediate prosecution if required. NCCT software supports Machine-to-Machine (M2M) cross-cueing and Internet Protocol (IP) connectivity to coordinate collection activities across the NCCT network. NCCT's time-sensitive targeting, utilization of intelligent sensor mesh networks, multi-INT fusion, multi-level security, automated tip and cueing are key contributions to the Sensing Grid's sensing, sense making, integration, and global orchestration thrusts.

In general, 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 all while satisfying DoD standards and Information Assurance requirements.

Specifically, FY 2024 funding will be dedicated to at least one major capability release and two minor releases, which are planned to include the following capabilities: 1) integration with new and emerging platforms such as THRESHER and USAF/RAAF E-7 Wedgetail, 2) implementation of automation gained through synaptic intelligence-based AI/ML, and 3) refinement of "NCCT fusion on the edge" with the RC-135 fleet.

FY 2024 funding will also focus 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 is dedicated to at least one major capability release, and two minor releases. These releases continue development of new and emerging multi-INT use cases, integration with additional platforms such as Over the Horizon Radar (OTHR), Joint Interface Capabilities Document - ELINT (JEL) and USAF/RAAF E-7 Wedgetail. FY 2023 is also initializing implementation of automation gained through synaptic intelligence-based AI/ML, "fusion on the edge" development with the RC-135 fleet, and continues preservation of rapid software delivery based on continuous user feedback. Funding also continues cloud utilization efforts, and initializes a User Interface modernization effort. Additionally, FY23 funding is continuing development on airborne moving target indication (AMTI) to SIGINT data fusion algorithms, and is supporting 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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FY 2022 focused on initiation of AMTI to SIGINT fusion algorithms, continued improvement of data accessibility to tactical users, continued adding disparate intelligence sources for cross cueing targets, continued cloud architecture set up, user experience enhancements exploration, and continued AI/ML integration.

Due to the rapidly changing threat environment, NCCT's DevSecOps 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).

This program element may include necessary civilian pay expenses required to manage, execute, and deliver weapon system capability. The use of such programs funds would be in addition to the civilian pay expenses budgeted in program element 0605827F, 0605828F, 0605829F, 0605831F, 0605832F, 0605833F, 0605898F, 0606398F. In FY23 0M was expended for civilian pay expenses in this program element, and in FY24 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. Program Change Summary ($ in Millions)	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total
Previous President's Budget	17.224	17.564	12.587	0.000	12.587
Current President's Budget	17.224	17.564	12.496	0.000	12.496
Total Adjustments	0.000	0.000	-0.091	0.000	-0.091
• 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	-0.091	0.000	-0.091

Change Summary Explanation

Development funding decreased due to completing fielding of NCCT's cloud-based architecture and fewer requirements to maintain legacy hardware and software.

C. Accomplishments/Planned Programs ($ in Millions)	FY 2022	FY 2023	FY 2024
Title: Core Technology	17.224	17.564	12.496

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C. Accomplishments/Planned Programs ($ in Millions)	FY 2022	FY 2023	FY 2024
Description: Accomplishments and planned efforts include development and upgrade of NCCT; technical support to users, fielding new user capabilities, and management activities ***FY 2023 Plans:*** FY 2023 funding is dedicated to at least one major capability release, and two minor releases. These releases continue development of new and emerging multi-INT use cases, integration with additional platforms such as Over the Horizon Radar (OTHR), Joint Interface Capabilities Document - ELINT (JEL) and USAF/RAAF E-7 Wedgetail. FY 2023 is also initializing implementation of automation gained through synaptic intelligence-based AI/ML, "fusion on the edge" development with the RC-135 fleet, and continues preservation of rapid software delivery based on continuous user feedback. Funding also continues cloud utilization efforts, and initializes a User Interface modernization effort. Additionally, FY23 funding is continuing development on airborne moving target indication (AMTI) to SIGINT data fusion algorithms, and is supporting rapid iteration across the enterprise with Joint All-Domain Command and Control (JADC2) platforms/systems, enabling the Air Force Sensing Grid. ***FY 2024 Plans:*** FY 2024 funding will be dedicated to at least one major capability release and two minor releases, which are planned to include the following capabilities: 1) integration with new and emerging platforms such as THRESHER and USAF/RAAF E-7 Wedgetail, 2) implementation of automation gained through synaptic intelligence-based AI/ML, and 3) refinement of "NCCT fusion on the edge" with the RC-135 fleet. FY 2024 funding will also focus 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 to FY 2024 Increase/Decrease Statement:*** Development funding decreased due to completing fielding of NCCT's cloud-based architecture and fewer requirements to maintain legacy hardware and software.			
Accomplishments/Planned Programs Subtotals	17.224	17.564	12.496

D. Other Program Funding Summary ($ in Millions)

Line Item	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
• OPAF 03 Line Item 832070: *Intelligence Comm Equipment*	3.225	3.799	3.395	-	3.395	3.310	3.481	3.558	3.629	Continuing	Continuing

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D. Other Program Funding Summary ($ in Millions)

Line Item	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

Remarks

E. Acquisition Strategy

The Network-Centric Collaborative Targeting (NCCT) capabilities are developed, maintained and sustained through evolutionary upgrades and any Quick Reaction Capability derived requirements. The 645th Aeronautical System Group (645 AESG) has cradle to grave lifecycle management responsibility of NCCT and rapid acquisition authorities are executed in accordance with the 645 AESG's Program Management Directive (PMD), Class Justification and Approval (J&A), and Life Cycle Management Plan (LCMP). Due to the rapidly changing threat environment and operational demand from platforms leveraging NCCT capabilities, the acquisition program manager has the authority to redirect funding as necessary to meet current stated and emerging/evolving Combatant Commander requirements.

645 AESG, Wright Patterson AFB OH, manages the Cost Plus Fixed Fee (CPFF) contracts used to develop 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.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2024 Air Force			Date: March 2023
Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 0305221F / *Network-Centric Collaborative Targeting*	Project (Number/Name) 675197 / *NCCT Core Technology*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2022 Cost	FY 2022 Award Date	FY 2023 Cost	FY 2023 Award Date	FY 2024 Base Cost	FY 2024 Base Award Date	FY 2024 OCO Cost	FY 2024 OCO Award Date	FY 2024 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Core Technology Development (Agile)	SS/CPFF	L-3 ComCept : Rockwall, TX	-	13.373	Mar 2022	11.270	Mar 2023	4.266	Mar 2024	-		4.266	Continuing	Continuing	-
UI/UX development	SS/FFP	Anduril : Los Angeles, CA	-	-		4.000	Apr 2023	5.000		-		5.000	Continuing	Continuing	-
AI/ML Development	SS/ Various	NaraLogics : Boston, MA	-	1.500	Aug 2022	0.750	Aug 2023	1.591	Aug 2024	-		1.591	Continuing	Continuing	-
		Subtotal	-	14.873		16.020		10.857		-		10.857	Continuing	Continuing	N/A

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2022 Cost	FY 2022 Award Date	FY 2023 Cost	FY 2023 Award Date	FY 2024 Base Cost	FY 2024 Base Award Date	FY 2024 OCO Cost	FY 2024 OCO Award Date	FY 2024 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Cloud Migration	SS/ Various	CACI : Sarasota, FL	-	1.451	May 2022	1.444	May 2023	1.539	May 2024	-		1.539	Continuing	Continuing	-
		Subtotal	-	1.451		1.444		1.539		-		1.539	Continuing	Continuing	N/A

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2022 Cost	FY 2022 Award Date	FY 2023 Cost	FY 2023 Award Date	FY 2024 Base Cost	FY 2024 Base Award Date	FY 2024 OCO Cost	FY 2024 OCO Award Date	FY 2024 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
PSC	Allot	645 AESG : Dayton, OH	-	0.900	Mar 2022	0.100	Mar 2023	0.100	Mar 2024	-		0.100	Continuing	Continuing	-
		Subtotal	-	0.900		0.100		0.100		-		0.100	Continuing	Continuing	N/A

	Prior Years	FY 2022		FY 2023		FY 2024 Base		FY 2024 OCO		FY 2024 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	-	17.224		17.564		12.496		-		12.496	Continuing	Continuing	N/A

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2024 Air Force		Date: March 2023
Appropriation/Budget Activity 3600 / 7	**R-1 Program Element (Number/Name)** PE 0305221F / *Network-Centric Collaborative Targeting*	**Project (Number/Name)** 675197 / *NCCT Core Technology*

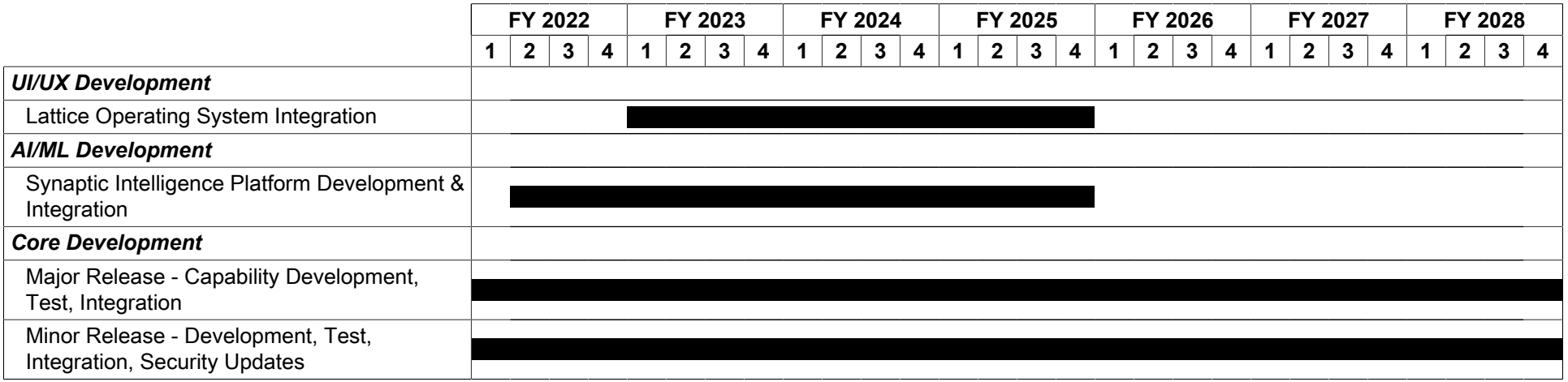

Exhibit R-4A, RDT&E Schedule Details: PB 2024 Air Force		Date: March 2023
Appropriation/Budget Activity 3600 / 7	**R-1 Program Element (Number/Name)** PE 0305221F / *Network-Centric Collaborative Targeting*	**Project (Number/Name)** 675197 / *NCCT Core Technology*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
UI/UX Development				
Lattice Operating System Integration	1	2023	4	2025
AI/ML Development				
Synaptic Intelligence Platform Development & Integration	2	2022	4	2025
Core Development				
Major Release - Capability Development, Test, Integration	1	2022	4	2028
Minor Release - Development, Test, Integration, Security Updates	1	2022	4	2028