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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 0305221F / <i>Network-Centric Collaborative Targeting</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	-	15.022	17.224	17.564	0.000	17.564	12.587	8.883	8.992	9.192	Continuing	Continuing
675197: <i>NCCT Core Technology</i>	-	15.022	17.224	17.564	0.000	17.564	12.587	8.883	8.992	9.192	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 such integration is a multi-intelligence (multi-INT) sensor network. Operationally, NCCT provides a tactical collaborative multi-INT geolocation capability employed against high-value targets. NCCT software supports Machine-to-Machine (M2M) cross-cueing and Internet Protocol (IP) connectivity to coordinate collection activities across the NCCT network. NCCT correlation and fusion software ingests collection data to produce a single, composite track (geolocation and identification) in near real-time for high-value targets. NCCT research and development funding supports evolutionary studies and development of the NCCT message set and network management systems (for example Operations Interfaces, Network Controllers, Fusion Engines, Data Guards, Interface to Command & Control, and Interface to All-Domain Overhead Cooperative Operations (AOCO)), and global web-enabled services, while satisfying DoD standards and Information Assurance requirements.

NCCT includes network management software, a network messaging standard, correlation and fusion software, software supporting tactical-to-national Signals Intelligence (SIGINT) Concept of Operations (CONOPS), multi-level security hardware and software items and operator interfaces. Development funds support software modifications required for technology modernization specific to network and fusion architecture design, data fusion algorithms and cyber security, while keeping pace with evolving adversary tactics, techniques, and procedures (TTPs). FY 2023 funding will be dedicated to fully integrating DevSecOps across the NCCT cloud-enabled architecture to support rapid iteration across the enterprise with Joint All-Domain Command and Control (JADC2) platforms/systems, and enable the Air Force sensing grid. FY 2023 funding will also focus on the development of new multi-INT use cases, implementation of automation gained through synaptic intelligence based AI/ML, and the preservation of rapid software delivery based on continuous user feedback.

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 currently stated and/or emerging/evolving operational requirements.

This program element may include necessary emergent or unanticipated civilian pay expenses required to manage, execute, and deliver NCCT for emergent or unanticipated weapon system capability. The use of such program funds would be in addition to the civilian pay expenses budgeted in program element 0605831F. 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 management administration (PMA) costs.

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.

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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	15.022	17.224	0.000	0.000	0.000
Current President's Budget	15.022	17.224	17.564	0.000	17.564
Total Adjustments	0.000	0.000	17.564	0.000	17.564
• 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	17.564	0.000	17.564

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.

C. Accomplishments/Planned Programs (\$ in Millions)	FY 2021	FY 2022	FY 2023
Title: Core Technology	15.022	17.224	17.564
Description: Accomplishments and planned efforts include development and upgrade of NCCT; technical support to users, fielding new user capabilities, and management activities			
FY 2022 Plans: FY 2022 is completing the transition of NCCT to a cloud-enabled architecture, while supporting integration across the enterprise with Joint All-Domain Command and Control (JADC2) platforms & systems, and enabling the Air Force sensing grid. FY 2022 funding is also integrating multi-INT use cases while leveraging rapid software deliveries based on continuous user feedback.			
FY 2023 Plans: FY 2023 funding will be dedicated to fully integrating DevSecOps into the NCCT cloud-enabled architecture to support integration across the enterprise with Joint All-Domain Command and Control (JADC2) platforms/systems, and enable the Air Force sensing grid. FY23 funding will also focus on the development of new multi-INT use cases, implementation of automation gained through synaptic intelligence based AI/ML, and the preservation of rapid software delivery based on continuous user feedback.			
FY 2022 to FY 2023 Increase/Decrease Statement: FY23 increased due to inflation.			
Accomplishments/Planned Programs Subtotals	15.022	17.224	17.564

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D. 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>
• OPAF 03 Line Item 832070: <i>Intelligence Comm Equipment</i>	2.997	3.225	3.799	-	3.799	3.395	3.310	3.481	3.558	Continuing	Continuing

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.

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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 0305221F / <i>Network-Centric Collaborative Targeting</i>	Project (Number/Name) 675197 / <i>NCCT Core Technology</i>

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

Core Technology	
V5 Series Field Upgrades	
V6 Development, Integration, and Test	
V6 Series Fielding and Updates	
V7 Development, Integration, and Test	
V7 Series Fielding and Updates	
V8 Development, Integration and Test	

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

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
Core Technology				
V5 Series Field Upgrades	1	2021	2	2022
V6 Development, Integration, and Test	1	2021	2	2022
V6 Series Fielding and Updates	4	2022	1	2024
V7 Development, Integration, and Test	4	2022	1	2024
V7 Series Fielding and Updates	3	2023	4	2024
V8 Development, Integration and Test	4	2023	4	2024