Exhibit R-2, RDT&E Budget Item Justification: PB 2022 Air Force												Date: May 2021
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 2020**	**FY 2021**	**FY 2022 Base**	**FY 2022 OCO**	**FY 2022 Total**	**FY 2023**	**FY 2024**	**FY 2025**	**FY 2026**	**Cost To Complete**	**Total Cost**
Total Program Element	-	10.757	15.022	17.224	0.000	17.224	-	-	-	-	-	-
675197: *NCCT Core Technology*	-	10.757	15.022	17.224	0.000	17.224	-	-	-	-	-	-
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 geo-location and is responsible for developing the fusion engine supporting the horizontal and/or vertical integration of Intelligence, Surveillance and Reconnaissance (ISR) sensor systems. The result of such integration is a multi-intelligence (multi-INT) sensor network. Operationally, NCCT Core Technologies provide 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 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 Overhead Intelligence Operations (OIO)), the migration of the technologies to emerging network centric technologies, global web-enabled services, while satisfying DoD standards and Information Assurance requirements.

NCCT Core Technology 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 2022 funding will be dedicated to completing the transition of NCCT Core Technology to a cloud-enabled architecture across the enterprise to support integration with Advanced Battle Management System (ABMS) and the Sensing Grid, developing new multi-INT use cases, and the continuation of rapid software deliveries 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 operational requirements.

This program element may include necessary civilian pay expenses required to manage, execute, and deliver NCCT weapon system capability. The use of such program funds would be in addition to the civilian pay expenses budgeted in program element 0605831F. In FY19 $0M and in FY20 $0M was expended 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.

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B. Program Change Summary ($ in Millions)	**FY 2020**	**FY 2021**	**FY 2022 Base**	**FY 2022 OCO**	**FY 2022 Total**
Previous President's Budget	10.757	15.049	17.761	0.000	17.761
Current President's Budget	10.757	15.022	17.224	0.000	17.224
Total Adjustments	0.000	-0.027	-0.537	0.000	-0.537
• Congressional General Reductions	0.000	-0.027			
• 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	-0.537	0.000	-0.537

C. Accomplishments/Planned Programs ($ in Millions)	FY 2020	FY 2021	FY 2022
Title: Core Technology	10.757	15.022	17.224
Description: Accomplishments and planned efforts include development and upgrade of NCCT Core Technology; technical support to users, fielding new user capabilities, and management activities ***FY 2021 Plans:*** Continue the transition of NCCT Core Technology to a cloud-enabled architecture across the enterprise to enable integration with ABMS and the Sensing Grid, integrating with other intelligence phenomenologies, developing new multi-INT use cases, and the continuation of rapid software deliveries based on continuous user feedback and DevSecOps. ***FY 2022 Plans:*** FY 2022 funding will be dedicated to completing the transition of NCCT Core Technology to a cloud-enabled architecture across the enterprise to support integration with Advanced Battle Management System (ABMS) and the Sensing Grid, developing new multi-INT use cases, and the continuation of rapid software deliveries based on continuous user feedback. ***FY 2021 to FY 2022 Increase/Decrease Statement:*** Funding increased due to an internal program rephasing from FY20 to FY22 and FY23			
Accomplishments/Planned Programs Subtotals	10.757	15.022	17.224

Exhibit R-2, RDT&E Budget Item Justification: PB 2022 Air Force	Date: May 2021
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D. Other Program Funding Summary ($ in Millions)

Line Item	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026	Cost To Complete	Total Cost
• OPAF 03 Line Item 832070: *Intelligence Comm Equipment*	3.148	2.997	3.225	-	3.225	-	-	-	-	-	-

Remarks

E. Acquisition Strategy

The Network-Centric Collaborative Targeting (NCCT) Core Technology capabilities are developed, maintained and sustained with baseline/incremental upgrades plus any Quick Reaction Capability (QRC) developments acquired through the 645th Aeronautical System Group (645 AESG) in accordance with their Program Management Directive (PMD), Class Justification and Approval (J&A), and Life Cycle Management Plan (LCMP) across the full spectrum of system life cycle management ("cradle to grave" support concept). Due to the rapidly changing threat environment encountered during our prolonged commitment to Overseas Contingency Operations (OCO), 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 Core Technology 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 2022 Air Force			Date: May 2021
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 2020 Cost	FY 2020 Award Date	FY 2021 Cost	FY 2021 Award Date	FY 2022 Base Cost	FY 2022 Base Award Date	FY 2022 OCO Cost	FY 2022 OCO Award Date	FY 2022 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Product Development	C/CPAF	Not specified. : TBD	-	0.000		0.000		0.000		0.000		0.000	-	-	-
Core Technology Development B	SS/CPFF	L-3 ComCept : Rockwall, TX	-	10.757	Mar 2020	14.122	Mar 2021	-		-		-	-	-	-
Core Technology Development (Agile)	SS/CPFF	L-3 ComCept : Rockwall, TX	-	-		-		16.324	Mar 2022	-		16.324	-	-	-
		Subtotal	-	10.757		14.122		16.324		0.000		16.324	-	-	N/A

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2020 Cost	FY 2020 Award Date	FY 2021 Cost	FY 2021 Award Date	FY 2022 Base Cost	FY 2022 Base Award Date	FY 2022 OCO Cost	FY 2022 OCO Award Date	FY 2022 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Management Services	C/CPAF	Not specified. : TBD	-	0.000		0.000		0.000		0.000		0.000	-	-	-
PMA	Allot	645 AESG : Dayton, OH	-	-		0.900	Mar 2021	0.900	Mar 2022	-		0.900	-	-	-
		Subtotal	-	0.000		0.900		0.900		0.000		0.900	-	-	N/A

	Prior Years	FY 2020 Cost	FY 2020 Award Date	FY 2021 Cost	FY 2021 Award Date	FY 2022 Base Cost	FY 2022 Base Award Date	FY 2022 OCO Cost	FY 2022 OCO Award Date	FY 2022 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	-	10.757		15.022		17.224		0.000		17.224	-	-	N/A

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2022 Air Force		Date: May 2021
Appropriation/Budget Activity 3600 / 7	**R-1 Program Element (Number/Name)** PE 0305221F / *Network-Centric Collaborative Targeting*	**Project (Number/Name)** 675197 / *NCCT Core Technology*

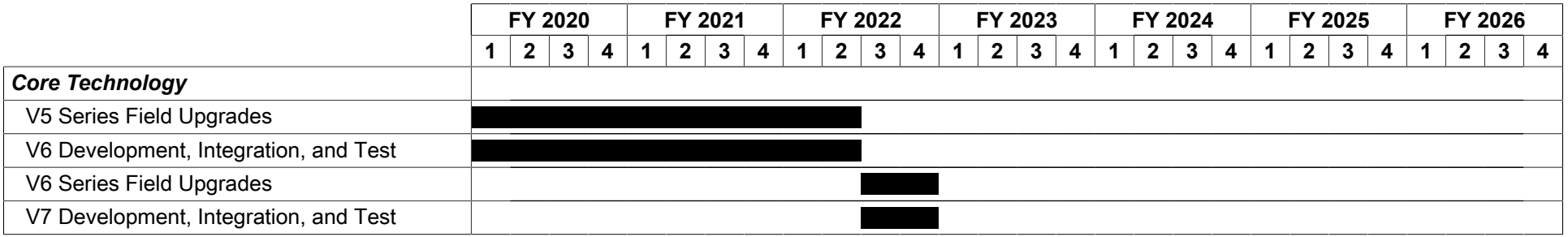

Exhibit R-4A, RDT&E Schedule Details: PB 2022 Air Force		Date: May 2021
Appropriation/Budget Activity 3600 / 7	**R-1 Program Element (Number/Name)** PE 0305221F / *Network-Centric Collaborative Targeting*	**Project (Number/Name)** 675197 / *NCCT Core Technology*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Core Technology				
V5 Series Field Upgrades	1	2020	2	2022
V6 Development, Integration, and Test	1	2020	2	2022
V6 Series Field Upgrades	3	2022	4	2022
V7 Development, Integration, and Test	3	2022	4	2022