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Exhibit R-2, RDT&E Budget Item Justification: PB 2024 Air Force **Date:** March 2023

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 0207247F / AF TENCAP
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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	-	23.685	25.559	25.749	0.000	25.749	23.968	24.567	25.071	25.979	Continuing	Continuing
670001: <i>Air Force TENCAP</i>	-	23.685	25.559	25.749	0.000	25.749	23.968	24.567	25.071	25.979	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Air Force Tactical Exploitation of National Capabilities (TENCAP) increases warfighter effectiveness through the exploitation of national capabilities and promotes cross-domain integration of these capabilities into military operations/training and intelligence, surveillance and reconnaissance (ISR) activities.

AF TENCAP exploits existing air, space, cyber, national and global ISR, and Non-Traditional ISR (NTISR) for operational and tactical applications by rapidly prototyping and providing capability demonstrations. Projects are designed to transition to warfighters or national intelligence agencies for operational use, and to appropriate acquisition Programs of Record for sustainment and further development. AF TENCAP projects influence the design and operation of current and future air, space, cyber, national and global ISR, and NTISR systems while providing situational awareness to warfighters, national intelligence agency organizations, and units. AF TENCAP projects will begin an evolution to demonstrate prototype capabilities to accelerate Battlespace Awareness Command and Control prototyping efforts into a single Common Operational Picture.

The program consists of multiple small projects supporting the Air Force Warfighting Integration Capability. Projects are executed to provide continued support to Special Operations Forces and the Air Force warfighter, with impacts at the national, operational, and tactical levels.

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 PY \$0.00M was expended for civilian pay expenses in this program element, and in CY \$00.00M is forecasted for civilian pay expenses in this program element.

This program element received \$3.00M Ukraine Security Assistance Initiative (USAI) Funds in FY23.

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 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total
Previous President's Budget	23.685	23.309	25.691	0.000	25.691
Current President's Budget	23.685	25.559	25.749	0.000	25.749
Total Adjustments	0.000	2.250	0.058	0.000	0.058
• 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	2.250	0.058	0.000	0.058

Change Summary Explanation

FY23: 25.559 Current President's Budget. The correct FY23 Current President's Budget amount is 26.309M. Due to a database administrative error, the FY23 Current President's Budget amount displayed in this document only accounts for \$2.250M of the Congressionally approved USAI \$3.000M funding. The program element has already received the full \$3.000M FY23 USAI appropriation and is executing at \$26.309M.

C. Accomplishments/Planned Programs (\$ in Millions)	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total
Title: Exploitation Applications	16.642	14.320	18.499	0.000	18.499
Description: Exploiting existing air, space, cyber, national and global ISR, and Non-Traditional ISR (NTISR) for operational and tactical applications by rapidly prototyping and demonstrating capabilities. National capabilities are exploited to deliver rapid, cost-dominant and innovative warfighting solutions. Project activities (TALONs) support Intelligence Surveillance and Reconnaissance requirements and the application of combat effects; Battlespace Awareness and Command and Control; support to Space; and support to Special Operations Forces and Advanced Capabilities. Activities also influence the design and operation of future space, cyber, national and global ISR, and NTISR systems for tactical users.					
FY 2023 Plans:					
- Continues to rapidly prototype projects and focus warfighter support and resource allocation based on AF TENCAP mission/investment areas.					
- Continues focused efforts to increase Air Domain Awareness and Command and Control; support to Special					

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C. Accomplishments/Planned Programs (\$ in Millions)					
Operations Forces and Advanced Capabilities; support to Space; and support to ISR and Combat Applications to meet Air Force and Joint Warfighter requirements.					
FY 2024 Base Plans: - Will continue to rapidly prototype projects and focus warfighter support and resource allocation based on AF TENCAP mission/investment areas					
- Will continue focused efforts to increase Air Domain Awareness and Command and Control; support to Special Operations Forces and Advanced Capabilities; support to Space; and support to ISR and Combat Applications to meet Air Force and Joint Warfighter requirements.					
FY 2024 OCO Plans: None.					
FY 2023 to FY 2024 Increase/Decrease Statement: Funding increased due to reallocation of the AF TENCAP Portfolio to meet tactical Warfighter needs.					
Title: TALON CRESTONE					
Description: TALON CRESTONE provides C-UAS capability in support of JUONS 558 & 576. Capability will be employed from airborne platforms and payloads will be controlled via a remote central server. This effort leverages existing National & Tactical technology and networks focused on the highest priority threats in CCMDs. Capability has been deployed to multiple CCMDs.					
FY 2023 Plans: TALON CRESTONE will complete handoff of transition activities of the C-UAS capability to the program of record (PoR) in support of JUONS 558 & 576. Funding will bridge transition to PoR, procure additional payloads and support critical integration and test within designated theater(s) of operations.					
FY 2024 Base Plans: No Activities Planned. Project transferred to Program of Record.					
FY 2024 OCO Plans: None.					
FY 2023 to FY 2024 Increase/Decrease Statement:					
	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total
	1.880	1.800	0.000	0.000	0.000

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C. Accomplishments/Planned Programs (\$ in Millions)					
	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total
Funding decreased due to the completion and transfer of project development, demonstration and test to acceptance by Program of Record.					
Title: TALON CRESTONE 2.0					
Description: TALON CRESTONE 2.0 develops a new form factor for TALON CRESTONE to increase counter-UAS operational flexibility and incorporate enhanced capabilities provided by TALON AVALANCHE (TALON AVALANCHE, upon completion in FY23, will leverage CRESTONE HW/SW to develop detect/collect/process capabilities against advanced UAV C2.) TALON CRESTONE 2.0 capability will be employed from airborne platforms and payloads and leverages existing National & Tactical technology and networks to focus on the highest priority threats in CCMDs. Capability will be deployed to multiple CCMDs.					
FY 2023 Plans: TALON CRESTONE 2.0 will start development of a new form factor for the TALON CRESTONE system incorporating enhanced capabilities provided from TALON AVALANCHE.					
FY 2024 Base Plans: TALON CRESTONE 2.0 will continue development of the new form factor for the TALON CRESTONE/TALON AVALANCHE system. Activities will include critical integration, demonstration and test, and will begin transition tasks to transfer capabilities to a program of record.					
FY 2024 OCO Plans: None.					
FY 2023 to FY 2024 Increase/Decrease Statement: Funding increased due to continuing development and adding demonstration and test activities to effort.					
	0.000	3.275	3.900	0.000	3.900
Title: TALON POWDERHORN					
Description: TALON POWDERHORN (previously TALON OMNIA) is a project to incorporate multi-domain Maritime and Air blue force data into the THRESHER common operational picture. TENCAP will develop architectures for blue force location and status data to inform decision makers on the AF JADC2 Awareness and Battle Management operational and tactical pictures. TALON POWDERHORN, will continue to develop methodologies and architectures to ingest blue force location and status data to provide decision makers blue force courses of action during force employment. Includes Grapical User Display development and integration into THRESHER Program of Record (All Domain Awareness tool).					
	1.503	3.104	2.000	0.000	2.000

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C. Accomplishments/Planned Programs (\$ in Millions)	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total
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FY 2023 Plans:
 - TALON POWDERHORN continues to accelerate integration of air and maritime blue force data into a single interface and demonstrate a prototype of Blue Force Air and Maritime Domain Awareness capabilities.
 - Continues to develop methodologies and architectures to ingest blue force location and status data to provide decision makers blue force courses of action during force employment.
 - Examines different Graphical User Interfaces for development and demonstrations.

FY 2024 Base Plans:
 - TALON POWDERHORN will continue development to integrate air and maritime blue force data into a single interface and demonstrate a prototype of Blue Force Air and Maritime Domain Awareness capabilities.
 - Will continue to develop methodologies and architectures to ingest blue force location and status data to provide decision makers blue force courses of action during force employment.

FY 2024 OCO Plans:
None.

FY 2023 to FY 2024 Increase/Decrease Statement:
Funding decreased due to transition of project from development phase into test and delivery of demonstrated capabilities.

Title: TALON PHOENIX	3.660	3.060	1.350	0.000	1.350
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Description: TALON PHOENIX is an effort to develop distributed SAP mission planning.

FY 2023 Plans:
Continues development of distributed SAP mission planning.

FY 2024 Base Plans:
Will continue development and platform deployment of distributed SAP mission planning software and tools. Demonstrate capability through collaborative user operational prototype testing events and transition capability to appropriate programs of record.

FY 2024 OCO Plans:

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C. Accomplishments/Planned Programs (\$ in Millions)	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total
None.					
<i>FY 2023 to FY 2024 Increase/Decrease Statement:</i> Funding decreased due to completion of tasks under project development and start of test, delivery of demonstrated capabilities.					
Accomplishments/Planned Programs Subtotals	23.685	25.559	25.749	0.000	25.749

D. Other Program Funding Summary (\$ in Millions)
N/A

Remarks
N/A

E. Acquisition Strategy
Projects are selected based upon needs identified by the program's customers - DOD Departments, Combatant Commands, Components, MAJCOMs, and/or National Intelligence Agencies. Many projects are executed via existing contracts maintained by other agencies; others are executed via AF TENCAP contracts established with vendors responding to annual Broad Agency Announcements. The U.S. Government organization sponsoring a project is responsible for assuming acquisition, deployment, logistics, sustainment and budgetary responsibilities for the developed capability after it has been successfully demonstrated by AF TENCAP.

AF TENCAP projects typically use an incremental acquisition strategy. AF TENCAP utilizes a disciplined systems engineering approach that allows program teams to solve problems through a series of segments. Each increment has to be successful to pursue the following segment which mitigates cost and schedule risk.

Contracts funded in this program element will be awarded using competitive procedures to the maximum extent possible.

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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 0207247F / AF TENCAP	Project (Number/Name) 670001 / Air Force TENCAP
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	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

AF TENCAP Projects																												
FY 2021 Exploitation Applications Developed, Evaluated, and Released																												
FY 2022 Exploitation Applications Developed, Evaluated, and Released																												
FY 2023 Exploitation Applications Developed, Evaluated, and Released																												
FY 2024 Exploitation Applications Developed, Evaluated, and Released																												
TALON CRESTONE																												
TALON CRESTONE 2.0																												
TALON POWDERHORN																												
TALON PHOENIX																												
FY 2025 Exploitation Applications Developed, Evaluated, and Released																												
FY 2026 Exploitation Applications Developed, Evaluated, and Released																												
FY 2027 Exploitation Applications Developed, Evaluated, and Released																												
FY 2028 Exploitation Applications Developed, Evaluated, and Released																												

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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 0207247F / AF TENCAP	Project (Number/Name) 670001 / Air Force TENCAP
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Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
AF TENCAP Projects				
FY 2021 Exploitation Applications Developed, Evaluated, and Released	1	2022	3	2022
FY 2022 Exploitation Applications Developed, Evaluated, and Released	1	2022	3	2023
FY 2023 Exploitation Applications Developed, Evaluated, and Released	1	2023	3	2024
FY 2024 Exploitation Applications Developed, Evaluated, and Released	1	2024	3	2025
TALON CRESTONE	1	2022	4	2023
TALON CRESTONE 2.0	2	2023	3	2025
TALON POWDERHORN	1	2022	1	2025
TALON PHOENIX	1	2022	2	2025
FY 2025 Exploitation Applications Developed, Evaluated, and Released	1	2025	3	2026
FY 2026 Exploitation Applications Developed, Evaluated, and Released	1	2026	3	2027
FY 2027 Exploitation Applications Developed, Evaluated, and Released	1	2027	3	2028
FY 2028 Exploitation Applications Developed, Evaluated, and Released	1	2028	4	2028

Note

Most project selection activities occur approximately per the timelines shown, but some projects are initiated on a rolling basis throughout each year in response to time-sensitive operational requirements.