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Exhibit R-2, RDT&E Budget Item Justification: PB 2022 Air Force **Date:** May 2021

Appropriation/Budget Activity 3600: <i>Research, Development, Test & Evaluation, Air Force</i> / BA 6: <i>RDT&E Management Support</i>					R-1 Program Element (Number/Name) PE 0702806F / <i>Acquisition and Management Support</i>							
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	-	5.696	13.384	37.211	0.000	37.211	-	-	-	-	-	-
66ACSI: <i>ACQ and Command Support Integration</i>	-	5.696	13.384	37.211	0.000	37.211	-	-	-	-	-	-

Note

In FY 2022, PE 0602788F, Dominant Information Sciences and Methods, Project 625315, C4I Dominance Technology, efforts were transferred to PE 0702806F, Acquisition and Management Support, Project 66ACSI, Acq and Command Support Integration, in order to improve and accelerate the delivery of artificial intelligence warfighting capabilities under the direction of both the Vice Chief of Staff of the Air Force and the Assistant Secretary of the Air Force (Acquisition, Technology & Logistics) and exercised through the Air Force Capability Development Council.

In FY 2022, PE 0602204F, Aerospace Sensors, Project 622003 EO Sensors & Countermeasures Tech and Project 626095 Sensor Fusion Technology efforts were transferred to PE 0702806F, Acquisition and Management Support, Project 66ACSI, Acq and Command Support Integration, in order, to improve and accelerate the delivery of artificial intelligence warfighting capabilities under the direction of both the Vice Chief of Staff of the Air Force and the Assistant Secretary of the Air Force (Acquisition, Technology & Logistics) and exercised through the Air Force Capability Development Council.

A. Mission Description and Budget Item Justification

The program funds efforts to meet the Defense Acquisition Workforce Improvement Act (DAWIA), as well as Congressional, SECDEF, and SECAF mandates to provide program management execution tools, systems integration and architectural analysis, information technology infrastructure development, and technical workforce management. Funding also provides the framework for Air Force business and acquisition transformation in developing capabilities-based architectures, re-engineering and enabling technologies, integrating robust systems engineering into early acquisition processes, acquisition process improvement analysis, and developing and managing a technical workforce with the expertise to uniformly implement OSD and Air Force engineering guidance and policies. These efforts provide stability in Air Force Acquisition by integrating major processes to reverse trends toward unpredictable program cost, schedule, and performance to facilitate quick response to urgent operational needs from across the entire spectrum of potential conflicts. These integrated capabilities will provide OSD and AF acquisition leadership insights needed to effectively manage a complex portfolio of acquisition programs through more timely and reliable access to authoritative acquisition data.

In FY 2022, the Air Force is refocusing a number of science and technology concept explorations in artificial intelligence (AI) across command, control, communications, sensor, and intelligence areas within PE 0602788F, Dominant Information Sciences and Methods, and PE 0602204F, Aerospace Sensors, to improve and accelerate the delivery of artificial intelligence warfighting capabilities under the direction of both the Vice Chief of Staff of the Air Force and the Assistant Secretary of the Air Force (Acquisition, Technology & Logistics) and exercised through the Air Force Capability Development Council. The Air Force will now perform these science and technology concept explorations under this Program Element as the Air Force continues to respond to and reflect 1) the vision outlined for Artificial Intelligence in the 2018 National Defense Strategy, 2) expectations outlined by the February 2019 White House Executive Order on Artificial Intelligence and the United States Department of Defense (DoD) Artificial Intelligence Strategy, 3) initiatives by other Armed Services to create AI-centric organizations, 4) Senior Air Force leadership goals to develop Artificial

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Intelligence applications for the United States Air Force in the near term, and 5) senior Department of Defense leadership objectives to enrich and strengthen the broader Air Force and Department Artificial Intelligence ecosystem to impact national security.

This program is in Budget Activity 6, RDT&E Management Support because this budget activity includes research, development, test and evaluation efforts and funds to sustain and/or modernize the installations or operations required for general research, development, test and evaluation.

B. Program Change Summary (\$ in Millions)	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Previous President's Budget	5.913	13.384	17.174	0.000	17.174
Current President's Budget	5.696	13.384	37.211	0.000	37.211
Total Adjustments	-0.217	0.000	20.037	0.000	20.037
• 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	-0.217	0.000			
• Other Adjustments	0.000	0.000	20.037	0.000	20.037

Change Summary Explanation

FY22 funding increased by \$20.037 due to transfer of funding from PE 0602788F, Dominant Information Sciences and Methods, Project 625315, C4I Dominance Technology, and PE 0602204F, Aerospace Sensors, Project 622003 EO Sensors & Countermeasures Tech and Project 626095 Sensor Fusion Technology.

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Appropriation/Budget Activity 3600 / 6					R-1 Program Element (Number/Name) PE 0702806F / <i>Acquisition and Management Support</i>				Project (Number/Name) 66ACSI / <i>ACQ and Command Support Integration</i>			
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
66ACSI: <i>ACQ and Command Support Integration</i>	-	5.696	13.384	37.211	0.000	37.211	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The program funds efforts to meet the Defense Acquisition Workforce Improvement Act (DAWIA), as well as Congressional, SECDEF, and SECAF mandates to provide program management execution tools, systems integration and architectural analysis, information technology infrastructure development, and technical workforce management. Funding also provides the framework for Air Force business and acquisition transformation in developing capabilities-based architectures, re-engineering and enabling technologies, integrating robust systems engineering into early acquisition processes, acquisition process improvement analysis, and developing and managing a technical workforce with the expertise to uniformly implement OSD and Air Force engineering guidance and policies. These efforts provide stability in Air Force Acquisition by integrating major processes to reverse trends toward unpredictable program cost, schedule, and performance to facilitate quick response to urgent operational needs from across the entire spectrum of potential conflicts. These integrated capabilities will provide OSD and AF acquisition leadership insights needed to effectively manage a complex portfolio of acquisition programs through more timely and reliable access to authoritative acquisition data.

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2020	FY 2021	FY 2022
<p>Title: Acquisition Mandates</p> <p>Description: Supporting Congressional, SECDEF, and SECAF mandates. Program funding provides the framework for Air Force business and acquisition.</p> <p>FY 2021 Plans: Continue program management and resources management oversight.</p> <p>FY 2022 Plans: Continue program management and resources management oversight.</p> <p>FY 2021 to FY 2022 Increase/Decrease Statement: Increased to perform a study on the Acquisition Workforce to investigate options for realigning funded manpower to programs/ efforts tightly aligned to the National Defense Strategy.</p>	0.649	2.782	9.759
<p>Title: Technical and Analytical Support</p> <p>Description: Supports Acquisition Domain-level effort to integrate existing acquisition business systems/services, data, and processes supporting key Acquisition capabilities at the enterprise level (via the Acquisition Domain Capabilities Integration (ADCI) activities). This support entails analysis required to architect an integrated environment on multiple hosting platforms to support the portfolio of acquisition business systems by solving problems across/outside of individual system boundaries with</p>	0.100	2.009	1.849

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B. Accomplishments/Planned Programs (\$ in Millions)		FY 2020	FY 2021	FY 2022
<p>the goal of reducing redundancy, improving systems operations, and improving management of data resulting in dramatically improved transparency, efficiency, and effective management of the Acquisition process. This support also helps implement standards for data management and service-oriented design methodology to facilitate efficiency and interoperability as well as providing some business intelligence services. The creation and support of domain-level requirements and governance processes as well as the creation of domain-wide data standards are additional support items provided. In addition, includes support for Artificial Intelligence/Machine Learning (AI/ML) pilots, experimentation associated with business analytics, acquisition program performance measures, and predictive analytics in support of decision-making and workforce training for the acquisition enterprise.</p> <p>FY 2021 Plans: Continuation of work supporting the automation of key Life Cycle Management Center (LCMC) and Space & Missile Systems Center (SMC) acquisition processes and onboarding of new capabilities across the Acquisition Domain. Supports refinement of CIO portfolio Artificial Intelligence (AI)/Machine Learning (ML) vision and incorporating functionalities built as part of AI/ML pilots, experimentation associated with business analytics, acquisition program performance measures, and predictive analytics in support of decision-making and workforce training for the acquisition enterprise.</p> <p>FY 2022 Plans: Continuation of work supporting the automation of key Life Cycle Management Center (LCMC) and Space & Missile Systems Center (SMC) acquisition processes and onboarding of new capabilities across the Acquisition Domain. Supports refinement of CIO portfolio Artificial Intelligence (AI)/Machine Learning (ML) vision and incorporating functionalities built as part of AI/ML pilots, experimentation associated with business analytics, acquisition program performance measures, and predictive analytics in support of decision-making and workforce training for the acquisition enterprise.</p> <p>FY 2021 to FY 2022 Increase/Decrease Statement: Decreased to fund other higher priority requirements.</p>				
<p>Title: Associated Tool Development</p> <p>Description: Upgrade the enterprise tools that assist PMs and acquisition professionals with the day-to-day program management tasks throughout an Acquisition program's lifecycle.</p> <p>FY 2021 Plans: Continue expansion of the integrated IT operational environment (Acquisition Application Store) to include additional Acquisition Program Office automation and additional application development. Continue assessment of appropriate tools.</p> <p>FY 2022 Plans:</p>		0.695	0.746	0.788

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B. Accomplishments/Planned Programs (\$ in Millions)		FY 2020	FY 2021	FY 2022
Continue expansion of the integrated IT operational environment (Acquisition Application Store) to include additional Acquisition Program Office automation and additional application development. Continue assessment of appropriate tools. FY 2021 to FY 2022 Increase/Decrease Statement: Increase in requirements				
Title: Project Management Resource Tools (PMRT) Description: Upgrade enterprise PMRT tools that provide program/project resource management support to the Acquisition community. FY 2021 Plans: Continued enhancement of PMRT to allow increased visibility to acquisition programmatic and financial information for all AF Acquisition investment programs. Continued expansion of critical PMRT interfaces via Acquisition Data Service Broker (ADSB) and enhance PMRT native apps. Increase PMRT refactoring and migration to the Cloud for the incorporation of Artificial Intelligence (AI), Machine Learning (ML), and Predictive Analysis. FY 2022 Plans: Continued enhancement of PMRT to allow increased visibility to acquisition programmatic and financial information for all AF Acquisition investment programs. Continued expansion of critical PMRT interfaces via Acquisition Data Service Broker (ADSB) and enhance PMRT native apps. Increase PMRT refactoring and migration to the Cloud for the incorporation of Artificial Intelligence (AI), Machine Learning (ML), and Predictive Analysis. FY 2021 to FY 2022 Increase/Decrease Statement: increase in requirements		2.056	5.646	8.677
Title: Capabilities Integration Environment (CIE) Description: CIE is an Infrastructure as a Service (IaaS) provider that enables application proofs-of-concept, development, integration, and test activities in accredited on-premises government cloud and third-party commercial cloud environments. FY 2021 Plans: Continue support for secure, scalable environment for R&D, DT/OT, integration, exercises, experimentation, acquisition development and direct Warfighter support. FY 2022 Plans:		1.996	2.001	0.938

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B. Accomplishments/Planned Programs (\$ in Millions)		FY 2020	FY 2021	FY 2022
Continue support for secure, scalable environment for R&D, DT/OT, integration, exercises, experimentation, acquisition development and direct Warfighter support. FY 2021 to FY 2022 Increase/Decrease Statement: Funding decreased due to move to the cloud environment				
Title: USAF Artificial Intelligence Accelerator at MIT Description: Establish the first phase of a state-of-the-art, end-to-end, sustainable ecosystem of AI technology from basic research to transformed data sets ready for use in developing artificial intelligence algorithms and operational prototypes. This effort creates an environment where integrated teams of MIT researchers and USAF Airmen develop Challenge Problems in AI and invites the academic and commercial communities to propose solutions to those Challenge Problems. FY 2022 Plans: Perform each of the following activities: Guardian Autonomy for Safe Decision Making; Fast AI; Transferring Multi-Robot Learning through Virtual and Augmented Reality for Rapid Disaster Response; Conversational Interaction for Unstructured Information Access and Language Learning; Multimodal Vision for Synthetic Aperture Radar; AI-Assisted Optimization of Training Schedules; The Earth Intelligence Engine; Robust Neural Differential Models for Navigation and Beyond; Objective Performance Prediction & Optimization using Physiological and Cognitive Metrics; AI-Enhanced Spectral Awareness and Interference Rejection; Application of Evolutionary Algorithms for DoD Complex Enterprises and AI Education Research: Know, Apply and Lead. FY 2021 to FY 2022 Increase/Decrease Statement: Increase due to transfer of funding.		-	-	15.000
Title: Development and Retention Description: Supports activities to develop, manage and retain the acquisition workforce. FY 2021 Plans: Continue to perform activities to develop, manage, and retain the acquisition workforce by providing training on enhanced business and engineering processes. FY 2022 Plans: Continue to perform activities to develop, manage, and retain the acquisition workforce by providing training on enhanced business and engineering processes.		0.200	0.200	0.200
Accomplishments/Planned Programs Subtotals		5.696	13.384	37.211

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C. Other Program Funding Summary (\$ in Millions)

N/A

Remarks

D. Acquisition Strategy

N/A