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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 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>	R-1 Program Element (Number/Name) PE 0207179F / <i>Autonomous Collaborative Platforms</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	-	0.000	0.000	51.747	0.000	51.747	51.895	0.000	0.000	0.000	0.000	103.642
647123: <i>Autonomous Collaborative Technologies</i>	-	0.000	0.000	51.747	0.000	51.747	51.895	0.000	0.000	0.000	0.000	103.642
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-	-	-

A. Mission Description and Budget Item Justification

Autonomous Collaborative Platform (ACPs) are un-crewed weapon systems primarily focused on projecting air power against adversaries. These new un-crewed air combat vehicles are designed to work in conjunction with current and future aircraft to provide operational flexibility, as directed by Department of the Air Force Leadership. The program matures technology from the Science and Technology (S&T) Skyborg Vanguard program to reduce risk through development, integration and test activities, speeding capabilities to warfighters. Key ACP attributes include tailored cost of platforms, rapidly updateable software, autonomy, interoperability with multiple platforms and network capabilities, agility of use, lethality, and ability to penetrate challenging air environments. Program activities will include the employment of digital acquisitions through the application of digital engineering, agile software development, and open systems architectures. Funding provides program management support, operational concept exploration, technology studies, multi-domain integration assessments, operational and system architecture development, maturation and risk reduction of air superiority related technologies including weapons systems and integrated system concept development and demonstration. Autonomous Collaborative Platform produced through these efforts will provide a competitive advantage in a "safe, secure, and robust" environment.

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 0605831F. In FY22, 0.0M is forecasted to be expended for civilian pay expenses in this program element, and in FY23, 1.9M is forecasted for civilian pay expenses in this program element.

The Autonomous Collaborative Platform program element (0207179F) is new for FY2023. Program element 0207179F, project 647123 is a continuation of previous work accomplished under the Skyborg Vanguard Program. The creation of this program element represents the transition of the Skyborg Vanguard Program from Advanced Technology Development (BA: 03) to Advanced Component Development and Prototypes (BA: 04). Funds requested for PE 0207179F, project 647123 in FY23 are an administrative realignment only and do not constitute a new start.

This effort is in Budget Activity 4, Advanced Component Development and Prototypes (ACD&P), because efforts are necessary to evaluate integrated technologies, representative modes or prototype systems in a high fidelity and realistic operating environment.

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Appropriation/Budget Activity 3600: <i>Research, Development, Test & Evaluation, Air Force I BA 4: Advanced Component Development & Prototypes (ACD&P)</i>	R-1 Program Element (Number/Name) PE 0207179F / <i>Autonomous Collaborative Platforms</i>
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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	0.000	0.000	0.000	0.000	0.000
Current President's Budget	0.000	0.000	51.747	0.000	51.747
Total Adjustments	0.000	0.000	51.747	0.000	51.747
• 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	51.747	0.000	51.747

Change Summary Explanation

The Autonomous Collaborative Platform program element (0207179F) is new for FY2023. Program element 0207179F, project 647123 is a continuation of previous work accomplished under the Skyborg Vanguard Program. The creation of this program element represents the transition of the Skyborg Vanguard Program from Advanced Technology Development (BA: 03) to Advanced Component Development and Prototypes (BA: 04). Funds requested for PE 0207179F, project 647123 in FY23 are an administrative realignment only and do not constitute a new start.

C. Accomplishments/Planned Programs (\$ in Millions)	FY 2021	FY 2022	FY 2023
Title: Autonomous Collaborative Platform	-	0.000	51.747
Description: The Autonomous Collaborative Platform candidate concepts consist of operational analyses/studies, technology candidate assessments, development, integration, prototyping and demonstrations to identify operational concepts and technologies that project air power against adversaries. Ongoing studies are conducted to refine ACP concepts and air superiority related technologies.			
FY 2022 Plans: N/A			
FY 2023 Plans: Autonomous Collaborative Platform will conduct analyses, identify technology candidates, perform concept refinement studies, development, integration, prototyping and demonstrations to reduce risk and mature ACP concepts and air superiority related technologies.			
FY 2022 to FY 2023 Increase/Decrease Statement:			

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C. Accomplishments/Planned Programs (\$ in Millions)	FY 2021	FY 2022	FY 2023
Increase due to transition from BA03 to BA04 activities			
Accomplishments/Planned Programs Subtotals	-	0.000	51.747

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

N/A

Remarks

E. Acquisition Strategy

The Autonomous Collaborative Platform acquisition strategy is based on a multi-domain capabilities development planning and oversight framework. Cross-functional teams will conduct analysis, demonstrations, and experiments to quantify the operational value of alternative concepts and technologies to provide solutions to current and future air superiority capability gaps.

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2023 Air Force **Date:** April 2022

Appropriation/Budget Activity 3600 / 4	R-1 Program Element (Number/Name) PE 0207179F / <i>Autonomous Collaborative Platforms</i>	Project (Number/Name) 647123 / <i>Autonomous Collaborative Technologies</i>
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Product Development (\$ in Millions)				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
ACP Research/ Development Efforts	Various	Various : TBD	-	-		-		47.697		-		47.697	Continuing	Continuing	-
Subtotal			-	-		-		47.697		-		47.697	Continuing	Continuing	N/A

Remarks
Contractual specifics are not available at this level of security classification.

Support (\$ in Millions)				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
ACP Acquisition Support	Various	Various : TBD	-	-		-		4.050		-		4.050	Continuing	Continuing	-
Subtotal			-	-		-		4.050		-		4.050	Continuing	Continuing	N/A

Remarks
Includes civilian pay

	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	-	-	-	51.747	-	51.747	Continuing	Continuing	N/A

Remarks
Contractual specifics are not available at this level of security classification.

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

<i>Autonomous Collaborative Platform</i>	
Concept Exploration	████████████████████
Integration Studies	████████████████████
Technology Risk Reduction / Prototyping	████████████████████

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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
<i>Autonomous Collaborative Platform</i>				
Concept Exploration	1	2023	4	2024
Integration Studies	1	2023	4	2024
Technology Risk Reduction / Prototyping	1	2023	4	2024