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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 0207040F / <i>Multi-Platform Electronic Warfare Equipment</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	36.607	23.195	0.000	23.195	21.986	0.000	0.000	0.000	0.000	81.788
670400: <i>SPECTRUM WARFARE ATTACK CAPABILITY</i>	-	0.000	36.607	23.195	0.000	23.195	21.986	0.000	0.000	0.000	0.000	81.788
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-	-	-

A. Mission Description and Budget Item Justification

The Angry Kitten Combat System (AKCS) program will further develop electronic attack capabilities supporting USAF fighter and attack platforms. The current 4th generation electronic warfare pods have diminishing manufacturing sources and require advanced capabilities. The AKCS program will develop a prototype electronic warfare system for 4th/5th generation aircraft that improves threat detection techniques, incorporates open system architecture, and advances reprogramming capabilities. Funds are required to leverage existing combat pod components and develop a relevant electronic warfare system supporting fighter and attack platforms.

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 FY21 \$0.0M was expended for civilian pay expenses in this program element, and in FY22 \$0.0M is forecasted for civilian pay expenses in this program element.

The total cost of the AKCS Middle Tier of Acquisition effort is \$89.2 million, including RDT&E and procurement of prototype units. The AKCS program is fully funded across the Future Years Defense Program.

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	0.000	36.607	0.000	0.000	0.000
Current President's Budget	0.000	36.607	23.195	0.000	23.195
Total Adjustments	0.000	0.000	23.195	0.000	23.195
• 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	23.195	0.000	23.195

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 FY 2023 cannot be made in a relevant manner.

C. Accomplishments/Planned Programs (\$ in Millions)	FY 2021	FY 2022	FY 2023
Title: Spectrum Warfare Attack Capability	0.000	36.607	23.195
Description: Spectrum Warfare Attack Capability will rapidly develop a prototype electronic warfare system for 4th/5th generation aircraft with open system architecture capability of addressing 21st century threats.			
FY 2022 Plans: Initiate Angry Kitten Combat System (AKCS) prototype development efforts that leverage existing aircraft pod hardware/software capabilities and develops a robust, advanced electronic warfare system for select aircraft platforms.			
FY 2023 Plans: Continue advancing the initial AKCS electronic warfare prototype system through design reviews/updates, lab testing, aircraft integration, and flight testing.			
FY 2022 to FY 2023 Increase/Decrease Statement: Funding decreased due to the program completing initial development efforts.			
Accomplishments/Planned Programs Subtotals	0.000	36.607	23.195

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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>
• APAF 07 000075: <i>Other Production Charges</i>	-	7.421	-	-	-	-	-	-	-	0.000	7.421

Remarks

E. Acquisition Strategy

Angry Kitten Combat System (AKCS) is a Middle Tier of Acquisition (MTA) program using Section 804 authority in accordance with AFGM2019-63-01, Air Force Guidance Memorandum for Rapid Acquisition Activities, 27 Jun 2019. Strategic goals are to rapidly develop and test an advanced prototype electronic warfare system with open system architecture, rapidly re-programmable capability, modular design, software-defined functionality, and cognitive technology. The acquisition strategy will include support from the following: University Academic Research Center (UARC), Other Transaction Authorities (OTA), and Industry Consortiums.

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

Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 0207040F / <i>Multi-Platform Electronic Warfare Equipment</i>	Project (Number/Name) 670400 / <i>SPECTRUM WARFARE ATTACK CAPABILITY</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			
OA Software	SS/CPFF	GTRI : Atlanta, GA	-	-		5.000	Apr 2022	2.000	Dec 2022	-		2.000	Continuing	Continuing	-
AI/ML Cognitive EA	SS/CPFF	AFRL/DTIC : Dayton, OH	-	-		15.950	Apr 2022	4.945	Dec 2022	-		4.945	Continuing	Continuing	-
EW Testbed	SS/CPFF	AFRL : Dayton, OH	-	-		10.000	Apr 2022	10.000	Dec 2022	-		10.000	Continuing	Continuing	-
Subtotal			-	-		30.950		16.945		-		16.945	Continuing	Continuing	N/A

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			
AC&SI Support	SS/CPFF	HII : Dayton, OH	-	-		2.800	Jun 2022	2.300	Jun 2023	-		2.300	Continuing	Continuing	-
Subtotal			-	-		2.800		2.300		-		2.300	Continuing	Continuing	N/A

Test and Evaluation (\$ 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			
System Testing	SS/CPFF	GTRI : Atlanta, GA	-	-		1.510	Apr 2022	2.000	Dec 2022	-		2.000	Continuing	Continuing	-
Subtotal			-	-		1.510		2.000		-		2.000	Continuing	Continuing	N/A

Management Services (\$ 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			
A&AS Support/Travel	SS/CPFF	PE Systems : Fairfax, VA	-	-		1.347	Apr 2022	1.950	Feb 2023	-		1.950	Continuing	Continuing	-
Subtotal			-	-		1.347		1.950		-		1.950	Continuing	Continuing	N/A

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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
AKCS Increment 1																												
Development	██████████																											
Test/Experiments				██████████																								
AKCS Increment 2																												
Development				████████████████████																								
Test/Experiments									██████████																			
AKCS Increment 3																												
Development											██																	
Test/Experiments																	██████████											

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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>AKCS Increment 1</i>				
Development	1	2021	4	2021
Test/Experiments	4	2021	2	2022
<i>AKCS Increment 2</i>				
Development	4	2021	1	2023
Test/Experiments	1	2023	1	2024
<i>AKCS Increment 3</i>				
Development	4	2022	1	2025
Test/Experiments	1	2025	3	2025