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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 0207040F / <i>Multi-Platform Electronic Warfare Equipment</i>
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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	-	27.063	45.895	7.312	0.000	7.312	0.000	0.000	0.000	0.000	0.000	80.270
670400: <i>SPECTRUM WARFARE ATTACK CAPABILITY</i>	-	27.063	45.895	7.312	0.000	7.312	0.000	0.000	0.000	0.000	0.000	80.270
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 (EW) pods have diminishing manufacturing sources and require advanced capabilities. The AKCS program will develop prototype EW systems for 4th/5th generation aircraft that improve threat detection techniques, incorporate open system architecture, and advance rapid reprogramming capabilities. Funds are required to leverage existing EW pod components and develop a relevant EW system supporting fighter and attack platforms.

The total cost of the AKCS Middle Tier of Acquisition effort is 64.27 million, including RDT&E. The AKCS is fully funded across the Future Years Defense Program.

The FY24 funding request was reduced by 14.724 million to account for the availability of prior year execution balances

This program element may include necessary civilian pay expenses required to manage, execute, and deliver weapon system capability. The use of such program funds would be in addition to the civilian pay expenses budgeted in program element 0605827F. In FY22 0.0M was expended for civilian pay expenses in this program element, and in FY27 0.0M is forecasted 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)	<u>FY 2022</u>	<u>FY 2023</u>	<u>FY 2024 Base</u>	<u>FY 2024 OCO</u>	<u>FY 2024 Total</u>
Previous President's Budget	36.607	23.195	21.986	0.000	21.986
Current President's Budget	27.063	45.895	7.312	0.000	7.312
Total Adjustments	-9.544	22.700	-14.674	0.000	-14.674
• Congressional General Reductions	0.000	0.000			
• Congressional Directed Reductions	0.000	0.000			
• Congressional Rescissions	0.000	0.000			
• Congressional Adds	0.000	22.700			
• Congressional Directed Transfers	0.000	0.000			
• Reprogrammings	0.000	0.000			
• SBIR/STTR Transfer	0.000	0.000			
• Other Adjustments	-9.544	0.000	-14.674	0.000	-14.674

Change Summary Explanation

FY22 adjustments: -1.134M for Small Business Innovative Research (SBIR); 8.405M for 1415 reprogramming FY22-83
 FY23 adjustments are congressional marks: Increase totaling 22.700M (15.700M for Angry Kitten combat pod and 7.000M for Cognitive AI for EW prototyping)
 FY24 adjustment is for AF underexecution

C. Accomplishments/Planned Programs (\$ in Millions)	<u>FY 2022</u>	<u>FY 2023</u>	<u>FY 2024</u>
Title: Spectrum Warfare Attack Capability	27.063	45.895	7.312
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 2023 Plans: Continue advancing the initial AKCS electronic warfare prototype system through design reviews/updates, lab testing, aircraft integration, and flight testing. Congressional Adds in FY23 will be used to redesign key components of the Pod to resolve diminishing manufacturing resources, continue to develop advanced electronic warfare capabilities, and advanced cognitive EW algorithms.			
FY 2024 Plans: Continue to prototype and demonstrate EW technologies to close capability gaps in Electromagnetic Spectrum (EMS) warfighting capabilities			
FY 2023 to FY 2024 Increase/Decrease Statement: Funding decreased from FY23 to FY24 accounts due to in-sufficient execution and obligation of program funds in FY21.			
Accomplishments/Planned Programs Subtotals	27.063	45.895	7.312

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

<u>Line Item</u>	<u>FY 2022</u>	<u>FY 2023</u>	<u>FY 2024</u> <u>Base</u>	<u>FY 2024</u> <u>OCO</u>	<u>FY 2024</u> <u>Total</u>	<u>FY 2025</u>	<u>FY 2026</u>	<u>FY 2027</u>	<u>FY 2028</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
• APAF 07 000075: <i>Other Production Charges</i>	7.421	0.000	0.000	-	0.000	-	-	-	-	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 advanced prototype electronic warfare systems 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 2024 Air Force												Date: March 2023			
Appropriation/Budget Activity				R-1 Program Element (Number/Name)				Project (Number/Name)							
3600 / 7				PE 0207040F / Multi-Platform Electronic Warfare Equipment				670400 / SPECTRUM WARFARE ATTACK CAPABILITY							
Product Development (\$ in Millions)				FY 2022		FY 2023		FY 2024 Base		FY 2024 OCO		FY 2024 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
OA Software	SS/CPFF	GTRI : Atlanta, GA	-	1.113	Apr 2022	17.700	Dec 2022	-		-		-	Continuing	Continuing	-
AI/ML Cognitive EA	SS/CPFF	AFRL/DTIC : Dayton, OH	-	15.950	Apr 2022	11.945	Dec 2022	2.362	Dec 2023	-		2.362	Continuing	Continuing	-
EW Testbed	SS/CPFF	AFRL : Dayton, OH	-	10.000	Apr 2022	10.000	Dec 2022	-		-		-	Continuing	Continuing	-
Subtotal			-	27.063		39.645		2.362		-		2.362	Continuing	Continuing	N/A
Support (\$ in Millions)				FY 2022		FY 2023		FY 2024 Base		FY 2024 OCO		FY 2024 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
AC&SI Support	SS/CPFF	HII : Dayton, OH	-	0.000	Jun 2022	2.300	Jun 2023	1.500	Jun 2024	-		1.500	Continuing	Continuing	-
Subtotal			-	0.000		2.300		1.500		-		1.500	Continuing	Continuing	N/A
Test and Evaluation (\$ in Millions)				FY 2022		FY 2023		FY 2024 Base		FY 2024 OCO		FY 2024 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
System Testing	SS/CPFF	GTRI : Atlanta, GA	-	0.000	Apr 2022	2.000	Dec 2022	1.500	Dec 2023	-		1.500	Continuing	Continuing	-
Subtotal			-	0.000		2.000		1.500		-		1.500	Continuing	Continuing	N/A
Management Services (\$ in Millions)				FY 2022		FY 2023		FY 2024 Base		FY 2024 OCO		FY 2024 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
A&AS Support/Travel	SS/CPFF	PE Systems : Fairfax, VA	-	0.000	Apr 2022	1.950	Feb 2023	1.950	Feb 2024	-		1.950	Continuing	Continuing	-
Subtotal			-	0.000		1.950		1.950		-		1.950	Continuing	Continuing	N/A

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	Prior Years	FY 2022		FY 2023		FY 2024 Base		FY 2024 OCO		FY 2024 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	-	27.063		45.895		7.312		-		7.312	Continuing	Continuing	N/A

Remarks
 FY23 increased by \$22.7M Congressional Add.

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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 0207040F / <i>Multi-Platform Electronic Warfare Equipment</i>			Project (Number/Name) 670400 / <i>SPECTRUM WARFARE ATTACK CAPABILITY</i>		

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

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

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Exhibit R-4A, RDT&E Schedule Details: PB 2024 Air Force		Date: March 2023
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Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
AKCS Increment 2				
Development	1	2022	1	2023
Test/Experiments	1	2023	1	2024
AKCS Increment 3				
Development	4	2022	1	2025
Test/Experiments	1	2025	2	2025