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

<b>Appropriation/Budget Activity</b> 3600: <i>Research, Development, Test &amp; Evaluation, Air Force I BA 7: Operational Systems Development</i>	<b>R-1 Program Element (Number/Name)</b> PE 0207040F / <i>Multi-Platform Electronic Warfare Equipment</i>
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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	-	0.000	0.000	36.607	0.000	36.607	-	-	-	-	-	-
670400: <i>SPECTRUM WARFARE ATTACK CAPABILITY</i>	-	0.000	0.000	36.607	0.000	36.607	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-	-	-

**Note**

This program, BA 7, PE 0207040F, project 670400, Spectrum Warfare Attack Capability, is a new start.

**A. Mission Description and Budget Item Justification**

Angry Kitten Combat Pod (AKCP) will rapidly prototype/field a suitable pod alternative to legacy ALQ-131/ALQ-184 combat pods. It will provide improved threat detection/response techniques and reprogramming capability to 4th generation combat aircraft/crews, enhancing survivability against specific legacy and emerging threat systems.

Existing legacy ALQ-131 Block II and ALQ-184 Electronic Warfare (EW) combat pods flown on 4th generation USAF fighter/attack aircraft are artifacts of the 1970s/1980s and suffer from substantial Diminishing Manufacturing Sources (DMS) issues. AFLCMC/WNY (EW Program Office) and ACC/A5L have initiated action to rapidly prototype/field the AKCP as a possible suitable alternative to the legacy ALQ-131 and ALQ-184 pods. AKCP will provide new capability for enhanced detection and EA against current/ emerging threats through: rapid reprogrammability, open system architectures, and software defined functionality. Current processes will also be evaluated to effectively respond to continuous integration of software-based systems and open architectures to address rapid development and deployment timelines.

Funds are required to modify the existing ALQ-167 training pod into a combat viable system. System requirements are derived from a MAJCOM 1067. The AKCP requirements are to develop threat technique software for the ALQ-167 Angry Kitten pod to counter a new classes of threat radars, and perform a military utility assessment/testing of combat capability for potential fielding as well as identify and adapt components within the ALQ-167 to satisfy military utility needs.

This program element may include necessary civilian pay expenses required to manage, execute, and deliver Spectrum Warfare Attack capability. The use of such programs funds would be in addition to the civilian pay expenses budgeted in program element 0605831F.

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>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>	
Previous President's Budget	0.000	0.000	0.000	0.000	0.000	
Current President's Budget	0.000	0.000	36.607	0.000	36.607	
Total Adjustments	0.000	0.000	36.607	0.000	36.607	
• 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	36.607	0.000	36.607	
<b>Change Summary Explanation</b>						
N/A						
<b>C. Accomplishments/Planned Programs (\$ in Millions)</b>				<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>
<b>Title:</b> Spectrum Warfare Attack Capability				0.000	0.000	36.607
<b>Description:</b> Spectrum Warfare Attack Capability will rapidly develop and field an Electronic Warfare Pod with open system architecture capable of addressing 21st century threats.						
<b>FY 2021 Plans:</b> N/A						
<b>FY 2022 Plans:</b> Initiate Increment 3 of the Alpha Phase of the MTA to rapidly prototype the Angry Kitten Combat Pod aimed at transitioning to Air Force open system architecture programs and achieving the maximum capability possible from both the pod and integration with the aircraft platform.						
<b>FY 2021 to FY 2022 Increase/Decrease Statement:</b> Funding increased to support the Alpha Phase of the MTA to rapidly prototype the Angry Kitten Combat Pod.						
<b>Accomplishments/Planned Programs Subtotals</b>				0.000	0.000	36.607

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

<u>Line Item</u>	<u>FY 2020</u>	<u>FY 2021</u>	<u>FY 2022</u> <u>Base</u>	<u>FY 2022</u> <u>OCO</u>	<u>FY 2022</u> <u>Total</u>	<u>FY 2023</u>	<u>FY 2024</u>	<u>FY 2025</u>	<u>FY 2026</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
• APAF 07 000075: <i>Other Production Charges</i>	-	-	7.421	-	7.421	-	-	-	-	-	-

**Remarks**

**E. Acquisition Strategy**

AKCP 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 of the program are to rapidly field an EW Pod with open system architectures capable of addressing 21st century threats. To achieve these goals, the program will accomplish the following objectives: initial fielding within 2 years; rapidly re-programmable; modular design maximizing use of COTS/GOTS; open architecture aligned system; minimize proprietary data rights on interfaces while allowing intellectual property within modules as appropriate; software defined functionality via Software Define Radios (SDRs).

Rapid Prototype Phase of the MTA involves rapid prototyping the Angry Kitten Combat Pod in three Increments. Increment 1 is an 18 month effort running from 2020 to 2022 to modify, test, and field a minimally acceptable combat capability. Increment 1 activity funded under Strategic Development Planning and Experimentation. Increment 2 is a 24 month effort running from 2021 to 2023 that will address unfunded and new limitations identified from Increment 1, increase combat capability with enhanced functionality/sustainability, and integration with the aircraft over Increment 1, and will forge the hardware/software architecture necessary to transition Air Force open architecture pathfinders. Increment 3 is a 36 month effort running from 2022 to 2025 aimed at transitioning to Air Force open system architecture programs and achieving the maximum capability possible from both the pod and integration with the aircraft platform. The Rapid Prototype Phase of the MTA (AKCP Increments 1, 2, and 3) will be completed within 5 years of the PEO approved acquisition strategy (approved March 2020). University Academic Research Center (UARC), Other Transaction Authorities (OTA) and industry consortiums are used to support the development and prototyping of the AKCP.

Rapid Fielding Phase of the MTA involves the rapid fielding of the Angry Kitten Combat Pod. The incremental acquisition strategy of the AKCP program enables a rapid fielding schedule by affording the MAJCOM a fielding decision upon completion of each increment. The program will enter Beta Phase following a MAJCOM approved fielding decision and approved PEO Beta Decision. Fielding will be completed within 5 years of Beta Phase start date. Other Transaction Authorities (OTA) and industry consortiums are used to support the production and fielding of the AKCP.

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2022 Air Force												Date: May 2021			
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							
<b>Product Development (\$ in Millions)</b>				FY 2020		FY 2021		FY 2022 Base		FY 2022 OCO		FY 2022 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
AKCP Increment 3	SS/CPFF	GTRI : Atlanta, GA	-	-		-		31.407	Jun 2022	-		31.407	-	-	-
<b>Subtotal</b>			-	-		-		31.407		-		31.407	-	-	N/A
<b>Test and Evaluation (\$ in Millions)</b>				FY 2020		FY 2021		FY 2022 Base		FY 2022 OCO		FY 2022 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
AKCP Increment 3	TBD	Various: TBD : TBD	-	-		-		1.500	Jun 2022	-		1.500	-	-	-
<b>Subtotal</b>			-	-		-		1.500		-		1.500	-	-	N/A
<b>Management Services (\$ in Millions)</b>				FY 2020		FY 2021		FY 2022 Base		FY 2022 OCO		FY 2022 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
AKCP/PMA	C/Various	Various: TBD : TBD	-	-		-		3.700	Jun 2022	-		3.700	-	-	-
<b>Subtotal</b>			-	-		-		3.700		-		3.700	-	-	N/A
<b>Project Cost Totals</b>			-	-		0.000		36.607		-		36.607	-	-	N/A
<b>Remarks</b>															

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<b>Exhibit R-4, RDT&amp;E Schedule Profile:</b> PB 2022 Air Force		<b>Date:</b> May 2021
<b>Appropriation/Budget Activity</b> 3600 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0207040F / <i>Multi-Platform Electronic Warfare Equipment</i>	<b>Project (Number/Name)</b> 670400 / <i>SPECTRUM WARFARE ATTACK CAPABILITY</i>

FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				FY 2025				FY 2026			
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

<b><i>Angry Kitten Combat Pod Mods</i></b>	
Increment 3 modifications	████████████████████

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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2022 Air Force		<b>Date:</b> May 2021
<b>Appropriation/Budget Activity</b> 3600 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0207040F / <i>Multi-Platform Electronic Warfare Equipment</i>	<b>Project (Number/Name)</b> 670400 / <i>SPECTRUM WARFARE ATTACK CAPABILITY</i>

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b><i>Angry Kitten Combat Pod Mods</i></b>				
Increment 3 modifications	1	2022	1	2023