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**Exhibit R-2, RDT&E Budget Item Justification:** PB 2025 Air Force **Date:** March 2024

<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 0207136F / <i>Manned Destructive Suppression</i>
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COST (\$ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
Total Program Element	-	9.540	16.543	16.182	0.000	16.182	17.925	18.293	18.245	18.605	Continuing	Continuing
674595: <i>F-16 HARM Targeting Sys</i>	-	9.540	16.543	16.182	0.000	16.182	17.925	18.293	18.245	18.605	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

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

The Manned Destructive Suppression (MDS) program funds the development and sustainment of the Air Force's Suppression of Enemy Air Defenses (SEAD) and Destruction of Enemy Air Defenses (DEAD) capabilities. The F-16 High-speed Anti-Radiation Missile (HARM) Targeting System (HTS) is currently the only programmed reactive SEAD/DEAD capability and enables targeting the HARM missile in its most lethal 'range known' mode. The program provides F-16 Block 50/52 and Block 40/42 aircraft with the ability to employ the AN/ASQ-213 targeting Pod. With the introduction of Pre-Planned Product Improvement (P3I) HTS Revision 7 in 2007, the AN/ASQ-213 Pod now has a precision geo-location capability to target Precision Guided Munitions (PGMs) to destroy fixed and mobile enemy air defense elements. Additionally, by relocating the AN/ASQ-213 HTS R7 Pod on the aircraft, the F-16 can simultaneously carry the HTS R7 Pod and an Advanced Targeting Pod (ATP). HTS R7 fielding is complete and represents the Air Force's near-term solution for reactive time-critical targeting for DEAD until this mission can be transferred to the F-35. HTS R7 derived precision targeting data can be provided to all Joint Forces via Link-16. This effort continues upgrades for the HTS and applies technologies similar to those demonstrated in the Advanced Tactical Targeting Technologies (AT3) program and HTS R7 development.

Funds may be used to address emerging and short-notice Diminishing Manufacturing Sources and Material Shortage (DMSMS) issues.

HTS leverages Digital acquisition tenets of open, agile and digital. This may include providing funds to prime contractors; program office contract support; facility, security and IT upgrades; common component development with other weapon systems to reduce redundant costs.

The FY2025 funding request was reduced by \$1.305 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 programs funds would be in addition to the civilian pay expenses budgeted in program elements 0605827F, 0605828F, 0605829F, 0605831F, 0605832F, 0605833F, 0605898F, 0606398F. In PY \$0.00M was expended for civilian pay expenses in this program element, and in CY \$0.00M is forecasted for civilian pay expenses in this 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>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2023</b>	<b>FY 2024</b>	<b>FY 2025 Base</b>	<b>FY 2025 OCO</b>	<b>FY 2025 Total</b>
Previous President's Budget	16.695	16.543	17.458	0.000	17.458
Current President's Budget	9.540	16.543	16.182	0.000	16.182
Total Adjustments	-7.155	0.000	-1.276	0.000	-1.276
• 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	-6.600	0.000			
• SBIR/STTR Transfer	-0.555	0.000			
• Other Adjustments	0.000	0.000	-1.276	0.000	-1.276

**Change Summary Explanation**

FY23 adjustments due to -\$3.373M on FY23-29PA and below threshold reprogrammings for -\$0.581M for Future Advanced Weapon Analysis and Prog (FAWAP) and -\$2.646M for SDB II and -\$0.555M for Small Business Innovative Research (SBIR)  
 FY25 funding reduced by -\$1.305M to account for the availability of prior year execution balances and inflation adjustments

**C. Accomplishments/Planned Programs (\$ in Millions)**

	<b>FY 2023</b>	<b>FY 2024</b>	<b>FY 2025 Base</b>	<b>FY 2025 OCO</b>	<b>FY 2025 Total</b>
<b>Title:</b> P3I R7 Software Upgrade (SWUP)	7.440	14.443	14.082	0.000	14.082
<b>Description:</b> HTS SWUP risk reduction and software development Engineering and Manufacturing Development (EMD) efforts include software updates in support of F-16 Operational Flight Profile (OFP) releases. These releases improve the capability of the pod in an evolving threat environment.					
<b>FY 2024 Plans:</b> Continue SWUP 4 iterative software development, EMD, and preparation for SWUP 4 flight testing. Mission support (i.e., program management for administrative and technical support) will continue. Continue SWUP Agile.					
<b>FY 2025 Base Plans:</b> Continue software upgrade risk reduction, iterative software development, preparation for software upgrade, and flight testing. Mission support (i.e., program management for administrative and technical support) will continue. Continue agile software upgrades.					
<b>FY 2025 OCO Plans:</b>					

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<b>C. Accomplishments/Planned Programs (\$ in Millions)</b>						
		<b>FY 2023</b>	<b>FY 2024</b>	<b>FY 2025 Base</b>	<b>FY 2025 OCO</b>	<b>FY 2025 Total</b>
N/A						
<b>FY 2024 to FY 2025 Increase/Decrease Statement:</b> Funding decreased due to updated pricing on new contract for software upgrade effort						
<b>Title:</b> Flight Test		1.200	1.200	1.200	0.000	1.200
<b>Description:</b> Conducts test planning, requirements derivation, and post-test data analysis and reporting. Provides test organization support to include test aircraft operations, threat/test range control and associated support, air refueling, and post-mission support. Ground testing, such as anechoic chamber testing, will also be accomplished as necessary.						
<b>FY 2024 Plans:</b> Government flight test operations will continue for SWUP 4 activities. This funding also includes baselining requirements from actual test data during recent flight testing.						
<b>FY 2025 Base Plans:</b> Government flight test operations will continue for SWUP 4 activities. This funding also includes baselining requirements from actual test data during recent flight testing.						
<b>FY 2025 OCO Plans:</b> N/A						
<b>FY 2024 to FY 2025 Increase/Decrease Statement:</b> No funding increase or decrease. Efforts continuing.						
<b>Title:</b> Joint Mission Planning System (JMPS)		0.900	0.900	0.900	0.000	0.900
<b>Description:</b> JMPS includes continued development and testing of candidate upgrades and incremental engineering releases in support of HTS SWUP fielding.						
<b>FY 2024 Plans:</b> Continue mission planning in support of future SWUP 4 efforts and other future SWUP requirements.						
<b>FY 2025 Base Plans:</b> Continue mission planning in support of future SWUP 4 efforts and other future SWUP requirements.						
<b>FY 2025 OCO Plans:</b>						

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<b>C. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2023</b>	<b>FY 2024</b>	<b>FY 2025 Base</b>	<b>FY 2025 OCO</b>	<b>FY 2025 Total</b>
N/A					
<b><i>FY 2024 to FY 2025 Increase/Decrease Statement:</i></b> No funding increase or decrease. Efforts continuing.					
<b>Accomplishments/Planned Programs Subtotals</b>	9.540	16.543	16.182	0.000	16.182

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

**Remarks**

**E. Acquisition Strategy**  
The HTS P3I R7 Software Update Program (SWUP) is underway to keep the HTS pod capable in a growing threat environment. The SWUP 3 Engineering & Manufacturing Development (EMD) and SWUP 4 Risk Reduction (RR) contract awarded in April 2019 as a Cost Plus Fixed Fee (CPFF) contract type and is a 36 month effort. The initial SWUP 4 EMD contract awarded in July 2021 for four months with three one year options. SWUP 3 included plans for two releases to the field: Builds A and B. SWUP 4 adopts a more agile approach with three potential releases to the field: Builds A, B, and C.

Future SWUP RR portion will mature candidates for future software builds by addressing findings from the field, incorporating requested improvements from the warfighter, and implementing other software changes to keep the HTS pod updated and mission capable. A follow on mod to the contract was accomplished in November 2021 for one year. Future SWUP RR efforts to begin in FY24.

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Air Force												Date: March 2024			
Appropriation/Budget Activity				R-1 Program Element (Number/Name)				Project (Number/Name)							
3600 / 7				PE 0207136F / Manned Destructive Suppression				674595 / F-16 HARM Targeting Sys							
<b>Product Development (\$ in Millions)</b>				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 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
HTS R7 SWUP/P3I	SS/CPFF	Raytheon Systems Co. : Tucson, AZ	-	5.290	Nov 2022	12.193	Nov 2023	14.082	Nov 2024	-		14.082	Continuing	Continuing	-
JMPS	SS/CPIF	Multiple : Multiple	-	0.900	May 2023	0.900	May 2024	0.900	May 2025	-		0.900	Continuing	Continuing	-
<b>Subtotal</b>			-	6.190		13.093		14.982		-		14.982	Continuing	Continuing	N/A
<b>Test and Evaluation (\$ in Millions)</b>				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 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
Flight Test	PO	412 and 96 TW, NAWCWD : Edwards, Eglin, CLake	-	1.200	Nov 2022	1.200	Nov 2023	1.200	Nov 2024	-		1.200	Continuing	Continuing	-
<b>Subtotal</b>			-	1.200		1.200		1.200		-		1.200	Continuing	Continuing	N/A
<b>Management Services (\$ in Millions)</b>				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 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
Program Management Administration	C/Various	Multiple : Eglin AFB Robins AFB	-	2.150	Feb 2023	2.250	Mar 2024	0.000	Mar 2025	-		0.000	Continuing	Continuing	-
<b>Subtotal</b>			-	2.150		2.250		0.000		-		0.000	Continuing	Continuing	N/A
<b>Project Cost Totals</b>			-	9.540		16.543		16.182		-		16.182	Continuing	Continuing	N/A
<b>Remarks</b>															

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<b>Exhibit R-4, RDT&amp;E Schedule Profile:</b> PB 2025 Air Force		<b>Date:</b> March 2024
<b>Appropriation/Budget Activity</b> 3600 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0207136F / <i>Manned Destructive Suppression</i>	<b>Project (Number/Name)</b> 674595 / <i>F-16 HARM Targeting Sys</i>

FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029			
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>Manned Destructive Suppression</i></b>	
Continuous SWUP 4 development	
Future SWUP Risk Reduction	

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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2025 Air Force		<b>Date:</b> March 2024
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Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b><i>Manned Destructive Suppression</i></b>				
Continuous SWUP 4 development	1	2023	4	2029
Future SWUP Risk Reduction	2	2024	4	2029