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Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force **DATE:** April 2013

APPROPRIATION/BUDGET ACTIVITY 3600: <i>Research, Development, Test & Evaluation, Air Force</i> BA 7: <i>Operational Systems Development</i>	R-1 ITEM NOMENCLATURE PE 0207136F: <i>Manned Destructive Suppression</i>
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COST (\$ in Millions)	All Prior Years	FY 2012	FY 2013 [#]	FY 2014 Base	FY 2014 OCO ^{##}	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
Total Program Element	-	8.515	13.683	13.138	-	13.138	15.017	15.133	15.191	15.464	Continuing	Continuing
674595: <i>F-16 HARM Targeting System</i>	-	8.515	13.683	13.138	-	13.138	15.017	15.133	15.191	15.464	Continuing	Continuing
Quantity of RDT&E Articles		0	0	0		0	0	0	0	0		

[#] FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

^{##} The FY 2014 OCO Request will be submitted at a later date

A. Mission Description and Budget Item Justification

The Manned Destructive Suppression (MDS) program element funds the development, procurement, and sustainment of the Air Force's Suppression of Enemy Air Defenses (SEAD) and Destruction of Enemy Air Defenses (DEAD) capabilities. The F-16 HARM Targeting System (HTS) is currently the only programmed reactive SEAD 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 Pod. With the introduction of HTS Revision 7 (HTS R7) 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 to the aircraft's left inlet hard point, 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 F-35 or a yet to be defined system. HTS R7 derived precision targeting data can be provided to all Joint Forces via Link-16. This effort continues preplanned product improvements (P3I) for the HTS and applies technologies similar to those demonstrated in the Advanced Tactical Targeting Technologies (AT3) program and HTS R7 development.

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 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total
Previous President's Budget		13.253	13.683	14.037	-	14.037
Current President's Budget		8.515	13.683	13.138	-	13.138
Total Adjustments		-4.738	0.000	-0.899	-	-0.899
• Congressional General Reductions		-	0.000			
• Congressional Directed Reductions		-	0.000			
• Congressional Rescissions		0.000	0.000			
• Congressional Adds		-	0.000			
• Congressional Directed Transfers		-	0.000			
• Reprogrammings		-4.441	0.000			
• SBIR/STTR Transfer		-0.297	0.000			
• Other Adjustments		0.000	0.000	-0.899	-	-0.899
Change Summary Explanation FY12 funding reprogrammed to higher Air Force priorities. FY14 adjustment for program re-phasing.						
C. Accomplishments/Planned Programs (\$ in Millions)				FY 2012	FY 2013	FY 2014
Title: P3I R7 Software Upgrade (SWUP)				6.985	10.067	10.094
Description: P3I R7 Software Upgrade (SWUP)						
FY 2012 Accomplishments: HTS R7.7 SWUP flight testing support and additional software releases for flight testing continues, culminating in the release of R7.7 SWUP software. Studies continue on risk reduction efforts for future P3I phase(s). HTS R7.7 SWUP formal developmental flight testing and all associated data analysis and release of upgraded software will be completed. Risk reduction activities and candidate selection study efforts for follow-on upgrades continue. Also, final steps will be completed to potentially award the R7.8 SWUP development. The major pushes of this year will be releasing R7.7 SWUP software to the field, continued risk reduction candidate selection activities for follow-on P3I efforts, and planned award of the R7.8 SWUP development.						
FY 2013 Plans: HTS R7.8 SWUP development continues from risk reduction and program definition to software development and preparation for flight testing. Studies continue on risk reduction efforts for future P3I phase(s). Mission support, i.e., program management for administrative and technical support activities continue. The major thrusts of this year are R7.8 SWUP design and code activities and planning for subsequent flight testing.						
FY 2014 Plans:						

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C. Accomplishments/Planned Programs (\$ in Millions)		FY 2012	FY 2013	FY 2014
HTS R7.8 SWUP development continues in software development and start of initial flight testing. Studies continue on risk reduction efforts for future P3I phase(s). Mission support, i.e., program management for administrative and technical support continue. The major thrusts of this year is R7.8 SWUP design, code and testing preparation for the first initial flight testing.				
Title: Flight Test Description: Flight Test FY 2012 Accomplishments: Government flight test operations continue to include test planning and execution activities for final HTS R7.7 SWUP DT&E efforts, scheduling support for all needed resources and required configurations for each flight test mission. Ground testing continues via anechoic chamber testing, as needed. The test organization continues to conduct each mission to include F-16 test aircraft operations, threat ranges and associated support, air re-fueling, and range control support. Post-mission flight test support for each mission also continues. Initial test planning for HTS R7.8 SWUP continues. FY 2013 Plans: Government flight test operations continue to include test planning, and risk mitigation plans to address scarcity of resources; i.e., aircraft and ranges. This funding also includes test data analysis support and baselining of requirements from actual test data results during HTS SWUP R7.7 flight tests. FY 2014 Plans: Government flight test operations completes planning phase and enters into initial flight testing of R7.8 SWUP software capabilities. This funding also include test data analysis support and baselining of requirements from actual test data results during initial flight testing. Ground testing such as anechoic chamber testing will be conducted, as needed. The test organization will conduct each mission to include F-16 test aircraft operations, threat ranges and associated support, air re-fueling, and range control support. Post-mission flight test support for each mission is planned.		0.869	1.900	1.549
Title: Mission Planning Description: Joint Mission Planning System (JMPS) (Formerly Air Force Mission Support System (AFMSS)) FY 2012 Accomplishments: Continue mission planning software upgrade effort to include correcting deficiencies, additional engineering software releases and formal fielding in conjunction with HTS R7.7 SWUP software release. FY 2013 Plans:		0.038	0.888	0.635

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C. Accomplishments/Planned Programs (\$ in Millions)	FY 2012	FY 2013	FY 2014
Continue mission planning in conjunction with HTS R7.8 software upgrade. This effort will begin planning this year to address deficiencies, additional engineering software releases and forward fielding.			
FY 2014 Plans: Continue mission planning in conjunction with HTS R7.8 software upgrade. This effort will include development and testing of candidate upgrades and initial engineering releases in support of fielding.			
Title: Program Management Administration (PMA) Description: Program Management Administration	0.623	0.828	0.860
FY 2012 Accomplishments: PMA support continues for our Technical and Acquisition Management Support (TAMS) 4 contract as well as our Technical and Engineering Acquisition support (TEAS) 6 contract. Additionally, supplies required to support normal program office functions and travel required for mission accomplishment continue. Required support for common directorate support is included.			
FY 2013 Plans: PMA support continues for our Technical and Acquisition Management Support (TAMS) 4 contract as well as our Technical and Engineering Acquisition support (TEAS) 6 contract. Additionally, support continues for supplies required for normal program office functions and travel required for mission accomplishment. Required support for common directorate support continues.			
FY 2014 Plans: PMA support continues for our Technical and Acquisition Management Support (TAMS) 4 contract as well as our Technical and Engineering Acquisition support (TEAS) 6 contract. Support continues for supplies required for normal program office functions and travel required for mission accomplishment. Required support for common directorate support continues.			
Accomplishments/Planned Programs Subtotals	8.515	13.683	13.138

D. Other Program Funding Summary (\$ in Millions)											
Line Item	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
• No other investment funding: <i>N/A</i>	0.000	0.000	0.000		0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
Remarks											
E. Acquisition Strategy The HTS R7 improvement strategy includes accomplishment of risk reduction studies and selection of appropriate contracting strategies for P3I and upgrade of HTS inventory.											

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<u>F. Performance Metrics</u> Please refer to the Performance Base Budget Overview Book for information on how Air Force resources are applied and how those resources are contributing to Air Force performance goals and most importantly, how they contribute to our mission.		

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force												DATE: April 2013			
APPROPRIATION/BUDGET ACTIVITY 3600: <i>Research, Development, Test & Evaluation, Air Force</i> BA 7: <i>Operational Systems Development</i>						R-1 ITEM NOMENCLATURE PE 0207136F: <i>Manned Destructive Suppression</i>						PROJECT 674595: <i>F-16 HARM Targeting System</i>			
Product Development (\$ in Millions)				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All 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/CPIF	Raytheon Systems Co.:Tucson, AZ	-	6.985	Jan 2012	11.537	May 2013	10.094	May 2014	-		10.094	Continuing	Continuing	
JMPS (Formerly AFMSS)	MIPR	Multiple:Multiple,	-	0.038	Dec 2011	0.818	May 2013	0.635	Jan 2014	-		0.635	Continuing	Continuing	
Subtotal			0.000	7.023		12.355		10.729		0.000		10.729			
Remarks HTS R7.7 SWUP/P3I was released Dec 2012. HTS R7.8 SWUP risk reduction began in Jul 2011 with HTS R7.8 SWUP development scheduled to begin in May 2013.															
Support (\$ in Millions)				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Subtotal			0.000	0.000		0.000		0.000		0.000		0.000	0.000	0.000	0.000
Test and Evaluation (\$ in Millions)				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Government Test	PO	412 TW:Edwards AFB, CA	-	0.869	Jan 2012	0.500	Jun 2013	1.549	Jun 2014	-		1.549	Continuing	Continuing	
Subtotal			0.000	0.869		0.500		1.549		0.000		1.549			
Management Services (\$ in Millions)				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All 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, FL	-	0.623	Oct 2011	0.828	Oct 2012	0.860	Oct 2013	-		0.860	Continuing	Continuing	
Subtotal			0.000	0.623		0.828		0.860		0.000		0.860			

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	All Prior Years	FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract	
Project Cost Totals	0.000	8.515		13.683		13.138		0.000		13.138				

Remarks

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Exhibit R-4, RDT&E Schedule Profile: PB 2014 Air Force

DATE: April 2013

APPROPRIATION/BUDGET ACTIVITY

3600: Research, Development, Test & Evaluation, Air Force
BA 7: Operational Systems Development

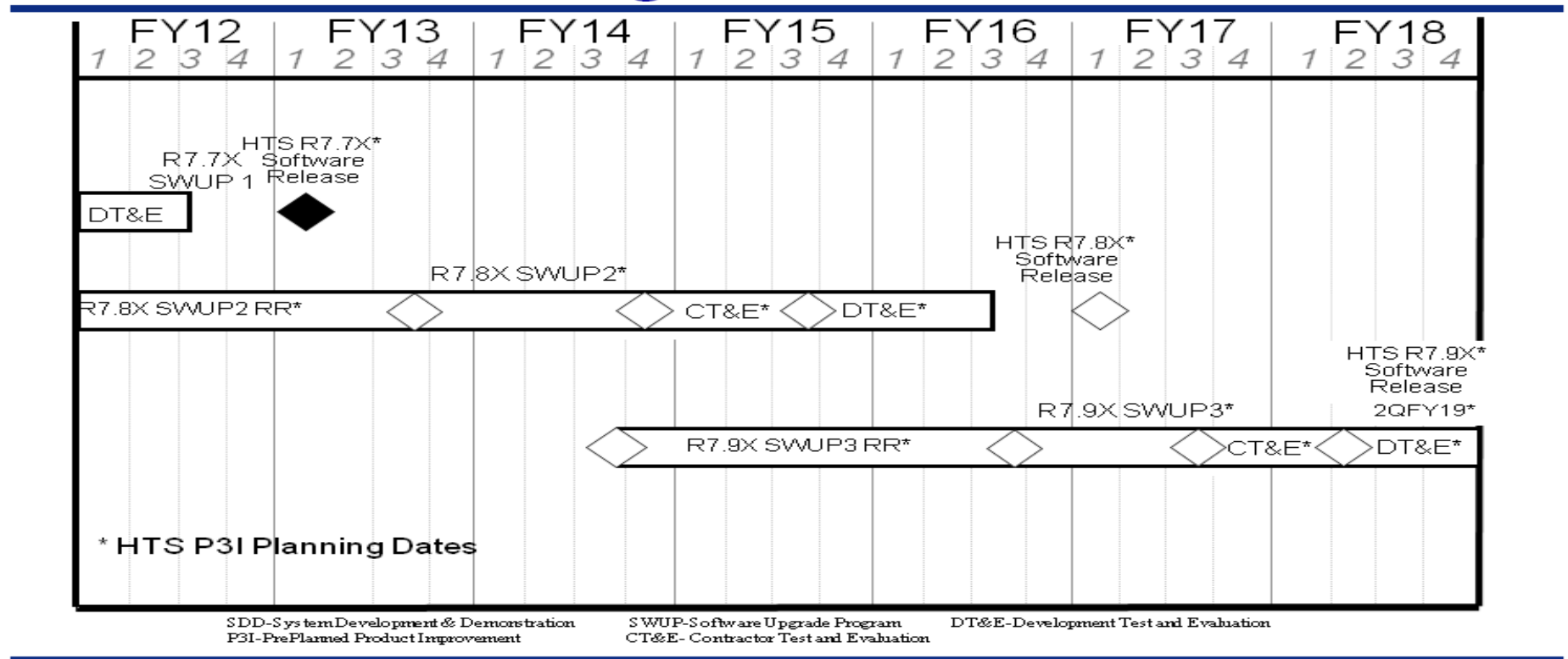
R-1 ITEM NOMENCLATURE

PE 0207136F: Manned Destructive
Suppression

PROJECT

674595: F-16 HARM Targeting System

HTS Development Program Schedule



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Exhibit R-4A, RDT&E Schedule Details: PB 2014 Air Force			DATE: April 2013
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Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
R7.7 SWUP Flight Test (DT&E)	1	2012	2	2012
HTS R7 7X Software Release	1	2013	1	2013
HTS P3I Risk Reduction for Next Phase Contract	1	2012	3	2013
R7.8 SWUP Contract	3	2013	2	2016
R7.8 SWUP Flight test (CT&E/DT&E)	3	2014	4	2015
HTS R7 8X Software Release	3	2016	3	2016
HTS R7.9X SWUP Risk Reduction	3	2014	4	2016
R7.9X SWUP 3 (CT&E/DT&E)	3	2017	2	2018