PE NUMBER: 0207136F
PE TITLE: Manned Destructive Suppression

Exhibit R-2, RDT&E Budget Item Justification

DATE **May 2009**

BUDGET ACTIVITY
07 Operational System Development

PE NUMBER AND TITLE
0207136F Manned Destructive Suppression

Cost ($ in Millions)	FY 2008 Actual	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate	FY 2012 Estimate	FY 2013 Estimate	FY 2014 Estimate	FY 2015 Estimate	Cost to Complete	Total
Total Program Element (PE) Cost	0.500	5.570	10.748	0.000	0.000	0.000	0.000	0.000	Continuing	TBD
4595 F-16 HARM Targeting System	0.500	5.570	10.748	0.000	0.000	0.000	0.000	0.000	Continuing	TBD

(U) A. Mission Description and Budget Item Justification

The overall Manned Destructive Suppression (MDS) program 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 aircraft with the ability to employ the AN/ASQ-213 Pod. With the introduction of HTS Revision 7 (HTS R7), the AN/ASQ-213 Pod has a precision geolocation capability to target Precision Guided Munitions (PGMs) to destroy fixed and mobile enemy air defense elements, and enables the F-16 to carry both an AN/ASQ-213 HTS R7 Pod and an Advanced Targeting Pod (ATP), by relocating HTS R7 pod to the aircraft's left inlet hard point. HTS R7 completed System Development and Demonstration (SDD) in FY07 following operational testing certification and fielding on the first F-16 Block 50/52 squadron in May 07. These improvements represent 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 precision targeting coordinates will be available to all Joint Forces via Link-16. This RDT&E effort continues preplanned product improvements (P3I) and applies technologies similar to those demonstrated in the Advanced Tactical Targeting Technologies (AT3) program and HTS R7 development. An on-going HTS R7 follow-on study was concluded in early FY09 to perform investigations, studies, risk reduction and pre-planning activities for P3I and also to address near-term deficiencies deferred from HTS R7 development. In FY 09, HTS Revision 7 (HTS R7) software upgrade (SWUP) development began to address known deficiencies and capability upgrades to system performance. In FY10, HTS R7 SWUP flight testing begins.

This PE is in Budget Activity 7 - Operational System Development because it supports preplanned product improvements and upgrade development of F-16 HTS (R7), a fielded system, to the HTS R7 SWUP configuration.

(U) B. Program Change Summary ($ in Millions)

		FY 2008	FY 2009	FY 2010
(U)	Previous President's Budget	0.000	5.585	0.000
(U)	Current PBR/President's Budget	0.500	5.570	10.748
(U)	Total Adjustments	0.500	-0.015	
(U)	Congressional Program Reductions			
	Congressional Rescissions		-0.015	
	Congressional Increases			
	Reprogrammings	0.500		
	SBIR/STTR Transfer			
(U)	Significant Program Changes:			

Exhibit R-2, RDT&E Budget Item Justification	DATE May 2009
BUDGET ACTIVITY 07 Operational System Development	PE NUMBER AND TITLE 0207136F Manned Destructive Suppression

Funding was reprogrammed in FY08 to provide needed bridge and follow-on study money to prepare for HTS R7 SWUP in beginning FY09. Additional funds were added for FY2010 to provide continued capability upgrades for HTS needed to address evolving threats, address performance shortfalls, additional operational requirements and aircraft operational flight programs changes or issues.

Exhibit R-2a, RDT&E Project Justification

DATE **May 2009**

BUDGET ACTIVITY
07 Operational System Development

PE NUMBER AND TITLE
0207136F Manned Destructive Suppression

PROJECT NUMBER AND TITLE
4595 F-16 HARM Targeting System

Cost ($ in Millions)	FY 2008 Actual	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate	FY 2012 Estimate	FY 2013 Estimate	FY 2014 Estimate	FY 2015 Estimate	Cost to Complete	Total
4595 F-16 HARM Targeting System	0.500	5.570	10.748	0.000	0.000	0.000	0.000	0.000	Continuing	TBD
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0		

(U) A. Mission Description and Budget Item Justification

The overall Manned Destructive Suppression (MDS) program 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 aircraft with the ability to employ the AN/ASQ-213 Pod. With the introduction of HTS Revision 7 (HTS R7), the AN/ASQ-213 Pod has a precision geolocation capability to target Precision Guided Munitions (PGMs) to destroy fixed and mobile enemy air defense elements, and enables the F-16 to carry both an AN/ASQ-213 HTS R7 Pod and an Advanced Targeting Pod (ATP), by relocating HTS R7 pod to the aircraft's left inlet hard point. HTS R7 completed System Development and Demonstration (SDD) in FY07 following operational testing certification and fielding on the first F-16 Block 50/52 squadron in May 07. These improvements represent 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 precision targeting coordinates will be available to all Joint Forces via Link-16. This RDT&E effort continues preplanned product improvements (P3I) and applies technologies similar to those demonstrated in the Advanced Tactical Targeting Technologies (AT3) program and HTS R7 development. An on-going HTS R7 follow-on study was concluded in early FY09 to perform investigations, studies, risk reduction and pre-planning activities for P3I and also to address near-term deficiencies deferred from HTS R7 development. In FY 09, HTS Revision 7 (HTS R7) software upgrade (SWUP) development began to address known deficiencies and capability upgrades to system performance. In FY10, HTS R7 SWUP flight testing begins.

This PE is in Budget Activity 7 - Operational System Development because it supports preplanned product improvements and upgrade development of F-16 HTS (R7), a fielded system, to the HTS R7 SWUP configuration.

(U) B. Accomplishments/Planned Program ($ in Millions)	FY 2008	FY 2009	FY 2010
(U) P3I R7 SWUP Contract and Flight Testing		4.711	8.879
(U) Air Force Mission Support System (AFMSS) Update Effort		0.438	0.818
(U) Continue Mission Support		0.421	1.051
(U) R7 Follow-on Study	0.500		
(U) Total Cost	0.500	5.570	10.748

(U) C. Other Program Funding Summary ($ in Millions)

	FY 2008 Actual	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate	FY 2012 Estimate	FY 2013 Estimate	FY 2014 Estimate	FY 2015 Estimate	Cost to Complete	Total Cost
(U) HTS Aircraft Procurement (BP19) APAF PE 0207136F	33.099	10.089	0.000	0.000	0.000	0.000	0.000	0.000	0.000	43.188

Exhibit R-2a, RDT&E Project Justification		DATE May 2009
BUDGET ACTIVITY **07 Operational System Development**	PE NUMBER AND TITLE **0207136F Manned Destructive Suppression**	PROJECT NUMBER AND TITLE **4595 F-16 HARM Targeting System**

(U) C. Other Program Funding Summary ($ in Millions)

FY2008 APAF funding totals include $23.038 in supplemental funding

(U) D. Acquisition Strategy

The HTS R7 included accomplishment of risk reduction studies and selection of appropriate contracting strategies for P3I and upgrade of HTS inventory.

Exhibit R-3, RDT&E Project Cost Analysis

DATE **May 2009**

BUDGET ACTIVITY
07 Operational System Development

PE NUMBER AND TITLE
0207136F Manned Destructive Suppression

PROJECT NUMBER AND TITLE
4595 F-16 HARM Targeting System

(U) Cost Categories (Tailor to WBS, or System/Item Requirements) ($ in Millions)	Contract Method & Type	Performing Activity & Location	Total Prior to FY 2008 Cost	FY 2008 Cost	FY 2008 Award Date	FY 2009 Cost	FY 2009 Award Date	FY 2010 Cost	FY 2010 Award Date	Cost to Complete	Total Cost	Target Value of Contract
(U) Product Development												
Raytheon Systems Co.	SS/Various		93.075	0.500		4.711		7.423			105.709	
Raytheon Systems Co.	SS/CPAF		31.431								31.431	
AFMSS	SS/CPIF		2.674			0.438		0.818			3.930	
Lockheed/Ft Worth	SS/FFP		2.400								2.400	
Subtotal Product Development			129.580	0.500		5.149		8.241		0.000	143.470	0.000
Remarks: HTS R7 SWUP/P3I begins in FY09.												
(U) Support												
Mission Support	Various		9.837			0.421		1.051			11.309	
Subtotal Support			9.837	0.000		0.421		1.051		0.000	11.309	0.000
Remarks:												
(U) Test & Evaluation												
Eglin	PO		2.175								2.175	
Edwards	PO		14.269					1.456			15.725	
Light Defender			0.922								0.922	
Subtotal Test & Evaluation			17.366	0.000		0.000		1.456		0.000	18.822	0.000
Remarks: Light Defender was a foreign system that was evaluated for possible SEAD role in 1995-96; but was not procured.												
(U) Management												
											0.000	
Subtotal Management			0.000	0.000		0.000		0.000		0.000	0.000	0.000
Remarks:												
(U) Total Cost			156.783	0.500		5.570		10.748		0.000	173.601	0.000

Exhibit R-4, RDT&E Schedule Profile		DATE May 2009
BUDGET ACTIVITY **07 Operational System Development**	PE NUMBER AND TITLE **0207136F Manned Destructive Suppression**	PROJECT NUMBER AND TITLE **4595 F-16 HARM Targeting System**

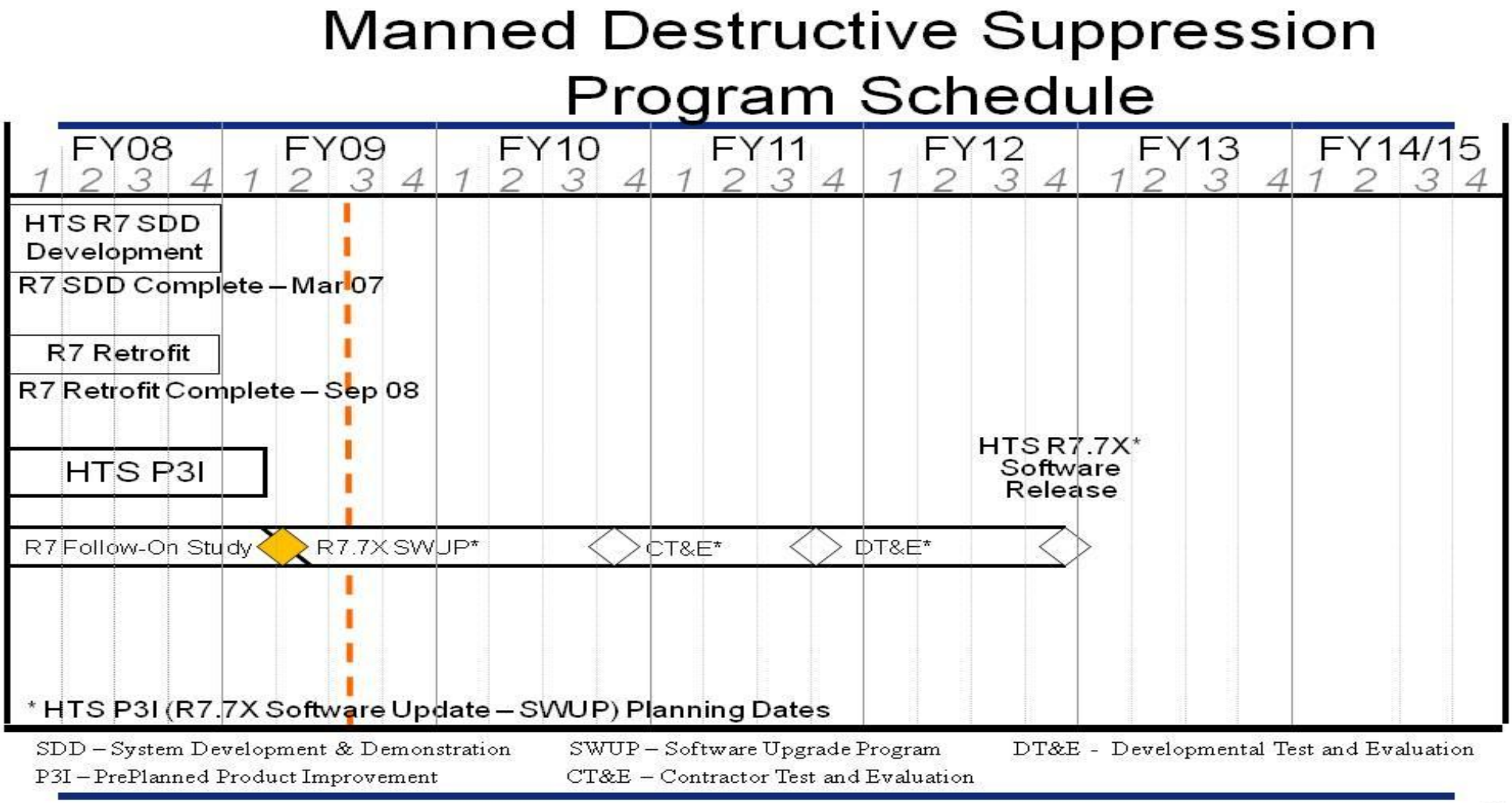

Exhibit R-4a, RDT&E Schedule Detail

DATE
May 2009

BUDGET ACTIVITY	PE NUMBER AND TITLE	PROJECT NUMBER AND TITLE
07 Operational System Development	**0207136F Manned Destructive Suppression**	**4595 F-16 HARM Targeting System**

(U) Schedule Profile	FY 2008	FY 2009	FY 2010
(U) R7 Follow-on Study Complete (SWUP Risk Reduction)		2Q	
(U) R7 SWUP Contract Award		2Q	
(U) R7 SWUP Flight Test Start (DT&E)			4Q

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