

UNCLASSIFIED

PE NUMBER: 0207136F

PE TITLE: Manned Destructive Suppression

Exhibit R-2, RDT&E Budget Item Justification

DATE

February 2005

BUDGET ACTIVITY

07 Operational System Development

PE NUMBER AND TITLE

0207136F Manned Destructive Suppression

Cost (\$ in Millions)	FY 2004 Actual	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate	Cost to Complete	Total
Total Program Element (PE) Cost	19.747	16.827	9.394	0.509	0.000	0.000	0.000	0.000	0.000	159.642
4595 F-16 Smart Targeting and Identification via Networked Geolocation (STING)	19.747	16.827	9.394	0.509	0.000	0.000	0.000	0.000	0.000	159.642

In FY 2002, Project 4595 was renamed Smart Targeting and Identification via Networked Geolocation (formerly HARM Targeting System). This action did not change program content.

The FY03 National Defense Authorization Act (NDAA) language directed T&E centers to charge only direct costs beginning in FY06; this resulted in a zero-balance transfer (ZBT) of funding over the FYDP from the customer accounts (for indirect test costs) to T&E support, PE 65807F.

(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. This RDT&E effort continues preplanned product improvements (P3I) and applies technologies similar to those demonstrated in the Advanced Tactical Targeting Technologies (AT3) program. In FY00, P3I development of HTS Revision 7 (HTS R7) began to address evolving threats and to incorporate a precision geolocation capability to target Precision Guided Munitions (PGMs) into the AN/ASQ 213 Pod. To better describe the capability to target PGMs as well as the HARM missile, the HTS R7 P3I program was renamed STING (Smart Targeting and Identification via Networked Geolocation). In FY01, the R7 P3I Program Definition and Risk Reduction (PDRR) was completed and the contract was awarded for System Development and Demonstration (SDD). STING (HTS R7) developed changes will also enable the F-16 to carry both an AN/ASQ-213 STING (R7) Pod and an Advanced Targeting Pod (ATP), by relocating STING (HTS R7) pod to the aircraft's left inlet hard point. These improvements represent the Air Force's near-term solution (capability can be transferred to F-35, Unmanned Combat Air Vehicle (UCAV), or a yet defined system) for reactive time critical targeting for the DEAD mission. STING (HTS R7) will target other PGMs to destroy fixed and mobile enemy air defense elements. STING (HTS R7) precision coordinates will be available to all Joint Forces via Link-16. FY05 continues flight test activities and final qualification for retrofit of HTS pods to STING (R7) pods. The STING (HTS R7) development effort is scheduled to be complete in FY07.

This PE is in Budget Activity 7 - Operational System Development because it supports preplanned product improvements and upgrade development of F-16 HTS (R6), a fielded system, to the STING (HTS R7) configuration.

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

	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>
(U) Previous President's Budget	20.458	16.976	12.268	0.499
(U) Current PBR/President's Budget	19.747	16.827	9.394	0.509
(U) Total Adjustments	-0.711	-0.149		
(U) Congressional Program Reductions		-0.149		
Congressional Rescissions				
Congressional Increases				
Reprogrammings	-0.093			
SBIR/STTR Transfer	-0.618			

(U) Significant Program Changes:

Program reductions in FY06 are due to test & evaluation (T&E) funding realignment.

UNCLASSIFIED

Exhibit R-2a, RDT&E Project Justification

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Cost (\$ in Millions)	FY 2004 Actual	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate	Cost to Complete	Total
4595 F-16 Smart Targeting and Identification via Networked Geolocation (STING)	19.747	16.827	9.394	0.509	0.000	0.000	0.000	0.000	0.000	159.642
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. This RDT&E effort continues preplanned product improvements (P3I) and applies technologies similar to those demonstrated in the Advanced Tactical Targeting Technologies (AT3) program. In FY00, P3I development of HTS Revision 7 (HTS R7) began to address evolving threats and to incorporate a precision geolocation capability to target Precision Guided Munitions (PGMs) into the AN/ASQ 213 Pod. To better describe the capability to target PGMs as well as the HARM missile, the HTS R7 P3I program was renamed STING (Smart Targeting and Identification via Networked Geolocation). In FY01, the R7 P3I Program Definition and Risk Reduction (PDRR) was completed and the contract was awarded for System Development and Demonstration (SDD). STING (HTS R7) developed changes will also enable the F-16 to carry both an AN/ASQ-213 STING (R7) Pod and an Advanced Targeting Pod (ATP), by relocating STING (HTS R7) pod to the aircraft's left inlet hard point. These improvements represent the Air Force's near-term solution (capability can be transferred to F-35, Unmanned Combat Air Vehicle (UCAV), or a yet defined system) for reactive time critical targeting for the DEAD mission. STING (HTS R7) will target other PGMs to destroy fixed and mobile enemy air defense elements. STING (HTS R7) precision coordinates will be available to all Joint Forces via Link-16. FY05 continues flight test activities and final qualification for retrofit of HTS pods to STING (R7) pods. The STING (HTS R7) development effort is scheduled to be complete in FY07.

This PE is in Budget Activity 7 - Operational System Development because it supports preplanned product improvements and upgrade development of F-16 HTS (R6), a fielded system, to the STING (HTS R7) configuration.

(U) **B. Accomplishments/Planned Program (\$ in Millions)**

	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>
(U) Continue STING (R7) Geolocation Upgrade Development	15.278	10.360	7.400	0.509
(U) Continue STING (R7) Upgrade Test and Evaluation Support	3.919	5.918	1.421	
(U) Continue Mission Support	0.550	0.549	0.573	
(U) Total Cost	19.747	16.827	9.394	0.509

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4595 F-16 Smart Targeting and
Identification via Networked
Geolocation (STING)(U) C. Other Program Funding Summary (\$ in Millions)

	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>Cost to</u>	<u>Total Cost</u>
	<u>Actual</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Complete</u>	
(U) AF RDT&E										
(U) Other APPN										
(U) HTS Aircraft Procurement (BP11)AF PE 0207136F	0.000	13.425	20.992	7.170	0.000	0.000				41.587
(U) HTS Aircraft Procurement (BP19)AF PE 0207136F	4.783	2.860	17.145	9.220	9.848	9.962				53.818

(U) D. Acquisition Strategy

The STING (R7) included accomplishment of risk reduction studies and selection of appropriate contracting strategies for SDD and retrofit of HTS inventory.

UNCLASSIFIED

Exhibit R-3, RDT&E Project Cost Analysis												DATE February 2005		
BUDGET ACTIVITY 07 Operational System Development					PE NUMBER AND TITLE 0207136F Manned Destructive Suppression					PROJECT NUMBER AND TITLE 4595 F-16 Smart Targeting and Identification via Networked Geolocation (STING)				
(U) Cost Categories (Tailor to WBS, or System/Item Requirements) (\$ in Millions)	Contract Method & Type	Performing Activity & Location	Total Prior to FY 2004 Cost	FY 2004 Cost	FY 2004 Award Date	FY 2005 Cost	FY 2005 Award Date	FY 2006 Cost	FY 2006 Award Date	FY 2007 Cost	FY 2007 Award Date	Cost to Complete	Total Cost	Target Value of Contract
(U) <u>Product Development</u> Raytheon Systems Co.	SS/Variou s		60.275	15.035		10.360		7.400		0.509			93.579	
Raytheon Systems Co.	SS/CPAF		31.331										31.331	
AFMSS	SS/CPIF		2.431	0.243									2.674	
Lockheed/Ft Worth	SS/FFP		2.400										2.400	
Subtotal Product Development			96.437	15.278		10.360		7.400		0.509		0.000	129.984	0.000
Remarks:	STING SDD Contract awarded FY01 (on-going through FY07)													
(U) <u>Support</u> Mission Support	Various		7.330	0.550		0.549		0.573					9.002	
Subtotal Support			7.330	0.550		0.549		0.573		0.000		0.000	9.002	0.000
Remarks:														
(U) <u>Test & Evaluation</u> Eglin	PO		2.175										2.175	
Edwards	PO		6.301	3.919		5.918		1.421					17.559	
Light Defender			0.922										0.922	
Subtotal Test & Evaluation			9.398	3.919		5.918		1.421		0.000		0.000	20.656	0.000
Remarks:														
(U) <u>Management</u> Subtotal Management			0.000	0.000		0.000		0.000		0.000		0.000	0.000	0.000
Remarks:														
(U) Total Cost			113.165	19.747		16.827		9.394		0.509		0.000	159.642	0.000

Exhibit R-4, RDT&E Schedule Profile

DATE

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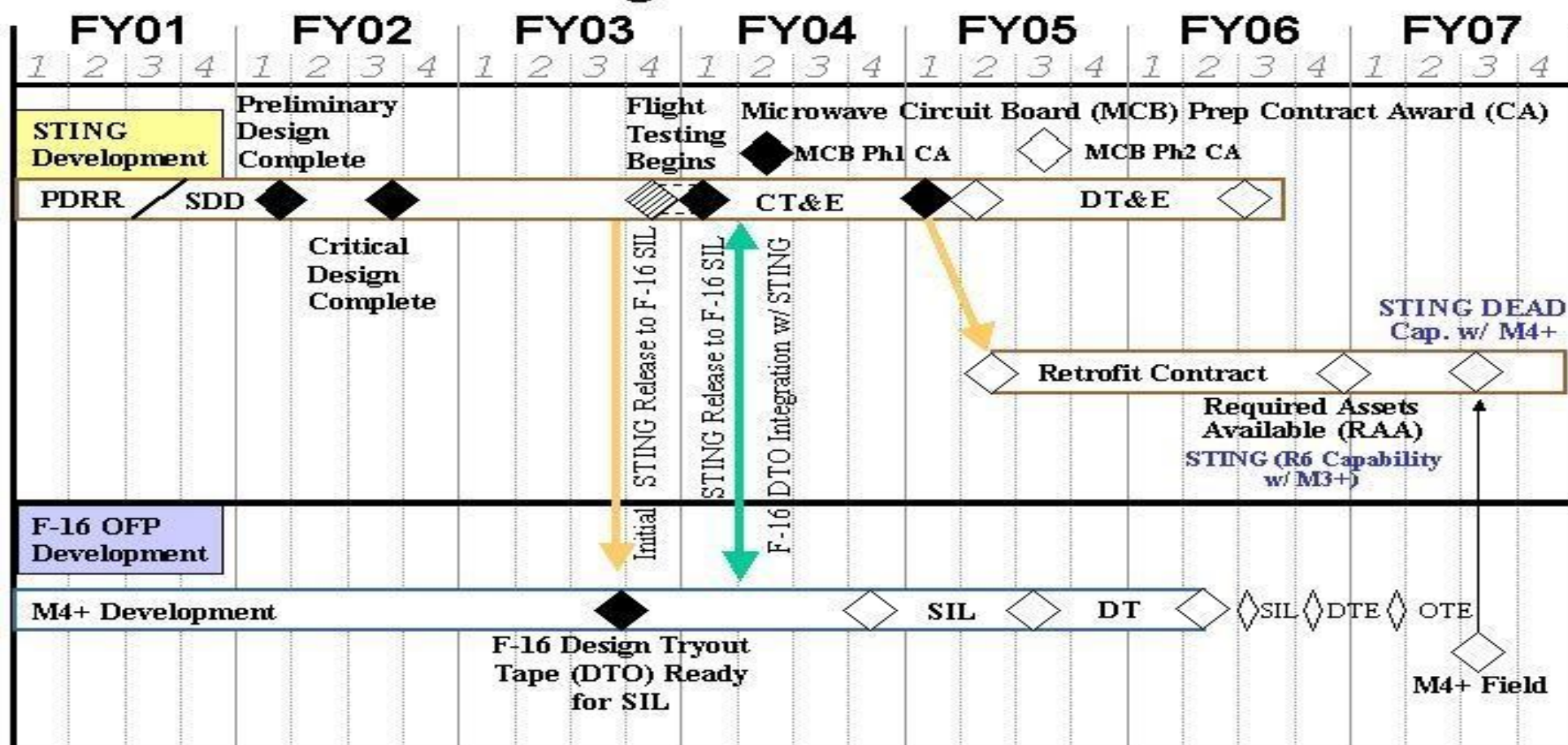
PE NUMBER AND TITLE

0207136F Manned Destructive
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PROJECT NUMBER AND TITLE

4595 F-16 Smart Targeting and
Identification via Networked
Geolocation (STING)

HTS R7 Development Program Schedule



UNCLASSIFIED

Exhibit R-4a, RDT&E Schedule Detail

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PROJECT NUMBER AND TITLE

4595 F-16 Smart Targeting and
Identification via Networked
Geolocation (STING)(U) **Schedule Profile**FY 2004FY 2005FY 2006FY 2007(U) Microwave Circuit Board (MCB) Producibility, Reliability Enhancement Program
(PREP) Contract Award -- Ph 1

2Q

(U) MCB PREP Contract Award -- Ph 2

3Q

(U) STING Retrofit Decision

2Q

(U) Retrofit Kits -- Contract Award

2Q

(U) Retrofit Kit Installation -- Contract Award

2Q

(U) STING (R7) RAA (R6 Capability w/ F-16 OFP M3+)

4Q

(U) STING (R7) Precision Targeting Capability (w/ F-16 OFP M4+)

3Q