

UNCLASSIFIED

PE NUMBER: 0207136F

PE TITLE: Manned Destructive Suppression

Exhibit R-2, RDT&E Budget Item Justification	DATE February 2004
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BUDGET ACTIVITY 07 Operational System Development	PE NUMBER AND TITLE 0207136F Manned Destructive Suppression
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Cost (\$ in Millions)	FY 2003 Actual	FY 2004 Estimate	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	Cost to Complete	Total
Total Program Element (PE) Cost	21.821	20.458	16.976	12.268	0.499	0.000	0.000	0.000	163.366
4595 F-16 Smart Targeting and Identification via Networked Geolocation (STING)	21.821	20.458	16.976	12.268	0.499	0.000	0.000	0.000	163.366

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.

(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 (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). FY03 marked the start of STING (R7) flight test activities. STING (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 (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 (R7) will target other PGMs to destroy fixed and mobile enemy air defense elements. STING (R7) precision coordinates will be available to all Joint Forces via Link-16. FY04 continued flight test activities and hardware qualification in preparation for retrofit of HTS pods to STING pods.

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 (R7) configuration.

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

	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>
(U) Previous President's Budget	22.910	20.633	10.320
(U) Current PBR/President's Budget	21.821	20.458	16.976
(U) Total Adjustments	-1.089	-0.175	
(U) Congressional Program Reductions			
Congressional Rescissions		-0.175	
Congressional Increases			
Reprogrammings	-0.379		
SBIR/STTR Transfer	-0.710		

(U) **Significant Program Changes:**

Adjustments in FY05-FY07 required to support a second schedule shift in F-16 integration. Increase necessary to maintain the same level of risk on the STING (R7) SDD contract and to cover increased flight testing costs.

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Cost (\$ in Millions)	FY 2003 Actual	FY 2004 Estimate	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	Cost to Complete	Total
4595 F-16 Smart Targeting and Identification via Networked Geolocation (STING)	21.821	20.458	16.976	12.268	0.499	0.000	0.000	0.000	163.366
Quantity of RDT&E Articles	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 (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). FY03 marked the start of STING (R7) flight test activities. STING (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 (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 (R7) will target other PGMs to destroy fixed and mobile enemy air defense elements. STING (R7) precision coordinates will be available to all Joint Forces via Link-16. FY04 continued flight test activities and hardware qualification in preparation for retrofit of HTS pods to STING pods.

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 (R7) configuration.

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

	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>
(U) Continue STING (R7) Geolocation Upgrade Development	19.120	17.105	12.241
(U) Continue STING (R7) Upgrade Test and Evaluation Support	1.782	2.826	4.190
(U) Continue Mission Support	0.919	0.527	0.545
(U) Total Cost	21.821	20.458	16.976

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

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Exhibit R-3, RDT&E Project Cost Analysis										DATE February 2004		
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>(U) Cost Categories</u>	<u>Contract Method & Type</u>	<u>Performing Activity & Location</u>	<u>Total Prior to FY 2003</u>	<u>FY 2003 Cost</u>	<u>FY 2003 Award Date</u>	<u>FY 2004 Cost</u>	<u>FY 2004 Award Date</u>	<u>FY 2005 Cost</u>	<u>FY 2005 Award Date</u>	<u>Cost to Complete</u>	<u>Total Cost</u>	<u>Target Value of Contract</u>
(\$ in Millions)												
<u>(U) Product Development</u>												
Raytheon Systems Co.	SS/Various		41.488	18.787		16.879		12.241		9.714	99.109	
Raytheon Systems Co.	SS/CPAF		31.331								31.331	
AFMSS	SS/CPIF		2.098	0.333		0.226					2.657	
Lockheed/Ft Worth	SS/FFP		2.400								2.400	
Subtotal Product Development			77.317	19.120		17.105		12.241		9.714	135.497	0.000
Remarks: STING SDD Contract awarded FY01 (on-going through FY07)												
<u>(U) Support</u>												
Program Mgt. and Mission Support	Various		6.411	0.919		0.527		0.545		0.562	8.964	
Subtotal Support			6.411	0.919		0.527		0.545		0.562	8.964	0.000
Remarks:												
<u>(U) Test & Evaluation</u>												
Eglin	PO		2.175								2.175	
Edwards	PO		4.519	1.782		2.826		4.190		2.491	15.808	
Light Defender			0.922								0.922	
Subtotal Test & Evaluation			7.616	1.782		2.826		4.190		2.491	18.905	0.000
Remarks:												
<u>(U) Management</u>												
Subtotal Management			0.000	0.000		0.000		0.000		0.000	0.000	0.000
Remarks:												
<u>(U) Total Cost</u>			91.344	21.821		20.458		16.976		12.767	163.366	0.000

Exhibit R-4, RDT&E Schedule Profile

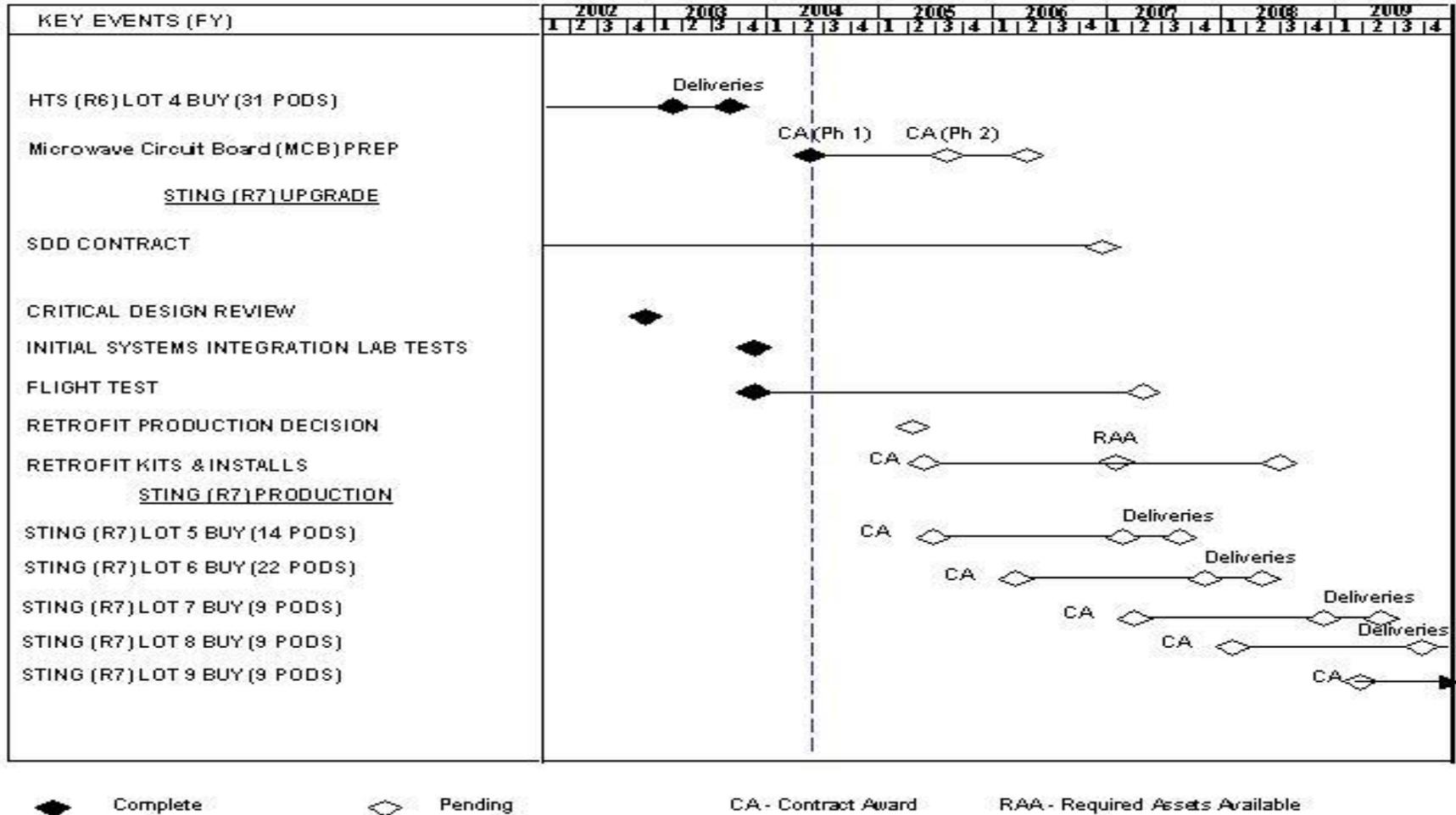
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PROJECT NUMBER AND TITLE
4595 F-16 Smart Targeting and
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Geolocation (STING)



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Exhibit R-4a, RDT&E Schedule Detail		DATE February 2004
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(U) <u>Schedule Profile</u>	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>
(U) Microwave Circuit Board (MCB) Producibility, Reliability Enhancement Program (PREP) Contract Award -- Ph 1		2Q	
(U) MCB PREP Contract Award -- Ph 2			2Q
(U) Initial F-16 System Integration Lab (SIL) Completed	4Q		
(U) STING Flight Test Begins	4Q		
(U) STING Retrofit Decision			1Q
(U) Retrofit Kits and Installs -- Contract Award			2Q
(U) STING Lot 5 Contract Award			2Q