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RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)

DATE
February 2003

BUDGET ACTIVITY 07 - Operational System Development				PE NUMBER AND TITLE 0207136F Manned Destructive Suppression						PROJECT 4595	
COST (\$ in Thousands)		FY 2002 Actual	FY 2003 Estimate	FY 2004 Estimate	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	Cost to Complete	Total Cost
4595	F-16 Smart Targeting and Identification via Networked Geolocation (STING)	20,630	22,910	20,633	10,320	7,901	0	0	0	0	153,108
	Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0	0

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

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). The STING (R7) SDD effort in FY02 included a preliminary design review, integration efforts for F-16 software, critical design review, and flight test planning. FY03 marks 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 JSF, UCAV, or a yet defined system) for reactive time critical targeting for the DEAD mission. STING (R7) will target the Joint Standoff Weapon (JSOW) and potentially 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.

(U) FY 2002 (\$ in Thousands)

- (U) \$0 Accomplishments/Planned Program
- (U) \$19,176 Continue STING (R7) Geolocation Upgrade Development
- (U) \$100 Continue STING (R7) Upgrade Test and Evaluation Support
- (U) \$1,354 Continue Mission Support

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BUDGET ACTIVITY		PE NUMBER AND TITLE		PROJECT		
07 - Operational System Development		0207136F Manned Destructive Suppression		4595		
(U) <u>A. Mission Description Continued</u>						
(U) <u>FY 2002 (\$ in Thousands) Continued</u>						
(U)	\$20,630	Total				
(U) <u>FY 2003 (\$ in Thousands)</u>						
(U)	\$0	Accomplishments/Planned Program				
(U)	\$18,435	Continue STING (R7) Geolocation Upgrade Development				
(U)	\$2,910	Continue STING (R7) Upgrade Test and Evaluation Support				
(U)	\$1,565	Continue Mission Support				
(U)	\$22,910	Total				
(U) <u>FY 2004 (\$ in Thousands)</u>						
(U)	\$0	Accomplishments/Planned Program				
(U)	\$13,803	Continue STING (R7) Geolocation Upgrade Development				
(U)	\$5,302	Continue STING (R7) Upgrade Test and Evaluation Support				
(U)	\$1,528	Continue Mission Support				
(U)	\$20,633	Total				
(U) <u>B. Budget Activity Justification</u>						
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) <u>C. Program Change Summary (\$ in Thousands)</u>						
			<u>FY 2002</u>	<u>FY 2003</u>	<u>FY 2004</u>	<u>Total Cost</u>
(U)	Previous President's Budget		22,017	23,699	14,341	
(U)	Appropriated Value		22,239	23,699		
(U)	Adjustments to Appropriated Value					
	a. Congressional/General Reductions		-222	-250		
	b. Small Business Innovative Research		-717			
	c. Omnibus or Other Above Threshold Reprogram			-539		
	d. Below Threshold Reprogram		-568			
	e. Rescissions		-102			
Project 4595		Page 2 of 6 Pages		Exhibit R-2 (PE 0207136F)		

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(U) **C. Program Change Summary (\$ in Thousands) Continued**

	<u>FY 2002</u>	<u>FY 2003</u>	<u>FY 2004</u>	<u>Total Cost</u>
(U) Adjustments to Budget Years Since FY 2003 PBR			6,292	
(U) Current Budget Submit/FY 2004 PBR	20,630	22,910	20,633	153,108

(U) **Significant Program Changes:**

Adjustments in FY04 required to support a schedule shift in F-16 integration to maintain the same level of risk on the STING (R7) SDD contract and to cover increased flight testing cost.

(U) **D. Other Program Funding Summary (\$ in Thousands)**

	<u>FY 2002</u>	<u>FY 2003</u>	<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>Cost to</u>	<u>Total Cost</u>
	<u>Actual</u>	<u>Estimate</u>	<u>Complete</u>							
(U) AF RDT&E										
(U) Other APPN										
(U) HTS Aircraft Procurement (BP11)AF PE 0207136F	0	0	0	13,681	15,716	5,094	0	0		34,491
(U) HTS Aircraft Procurement (BP19)AF PE 0207136F	0	0	4,819	20,336	21,524	9,548	9,625	9,607		75,459

(U) **E. Acquisition Strategy**

The STING (R7) program objective is to develop precision geolocation capability that significantly improves speed and accuracy of emitter targeting solutions on F-16 Block 50/52 aircraft. Precision geolocation capability will permit targeting of PGMs such as JSOW, in addition to the HARM missile, against mobile and fixed sites. The objective will be accomplished through study, risk reduction, and a System Development and Demonstration (SDD) effort leading to significant upgrades and increases in the F-16's and Joint Forces' reactive time critical targeting for Destruction of Enemy Air Defenses (DEAD) with JSOW and other PGMs.

(U) **F. Schedule Profile**

	<u>FY 2002</u>				<u>FY 2003</u>				<u>FY 2004</u>			
	1	2	3	4	1	2	3	4	1	2	3	4
(U) R6 Fielding Completed (December 2001)	*											
(U) R6 Lot 2 Pod Deliveries Complete (16 Pods)		*										
(U) R6 Lot 3 Pod Deliveries Complete (13 Pods)			*									
(U) R6 Lot 4 Pod Deliveries (31 Pods)				*								

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(U) <u>F. Schedule Profile Continued</u>																
					<u>FY 2002</u>					<u>FY 2003</u>		<u>FY 2004</u>				
					1	2	3	4	1	2	3	4	1	2	3	4
(U) STING (R7) Test Program Begins										X						
* = Completed Event					X = Planned Event											
Project 4595				Page 4 of 6 Pages				Exhibit R-2 (PE 0207136F)								

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RDT&E PROGRAM ELEMENT/PROJECT COST BREAKDOWN (R-3)							DATE February 2003			
BUDGET ACTIVITY					PE NUMBER AND TITLE			PROJECT		
07 - Operational System Development					0207136F Manned Destructive Suppression			4595		
(U) A. Project Cost Breakdown (\$ in Thousands)										
						<u>FY 2002</u>		<u>FY 2003</u>		<u>FY 2004</u>
(U)	STING (R7) Geolocation Dev (Includes R7/ATP Dual Carriage)					19,176		18,435		13,803
(U)	Test & Evaluation Support					100		2,910		5,302
(U)	Mission Support					1,354		1,565		1,528
(U)	Total					20,630		22,910		20,633
(U) B. Budget Acquisition History and Planning Information (\$ in Thousands)										
(U) Performing Organizations:										
<u>Contractor or Government</u>	<u>Contract Method/Type</u>	<u>Award or Obligation</u>	<u>Performing Activity</u>	<u>Project Office</u>	<u>Total Prior to FY 2002</u>	<u>Budget FY 2002</u>	<u>Budget FY 2003</u>	<u>Budget FY 2004</u>	<u>Budget to Complete</u>	<u>Total Program</u>
<u>Performing Activity</u>	<u>or Funding Vehicle</u>	<u>Date</u>	<u>EAC</u>	<u>EAC</u>						
<u>Product Development Organizations</u>										
Raytheon Systems Co.	SS/Various	Various	63,404	63,404	22,525	18,963	18,116	15,978	8,509	84,091
Raytheon Systems Co.	SS/CPAF	Feb 96	31,331	31,331	31,331					31,331
AFMSS	SS/CPIF	Various	1,885	1,885	1,885	213	333	306	246	2,983
Lockheed/Ft Worth	SS/FFP	Various	2,400	2,400	2,400					2,400
<u>Support and Management Organizations</u>										
Prog. Mgt. and Mission Support	Various	Various			5,057	1,354	1,551	1,523	3,285	12,770
<u>Test and Evaluation Organizations</u>										
Eglin	PO	Various			2,175					2,175
Edwards	PO	Various			4,419	100	2,910	2,826	6,181	16,436
Light Defender		Various			922					922
(U) Government Furnished Property:										
<u>Item Description</u>	<u>Contract Method/Type or Funding Vehicle</u>	<u>Award or Obligation Date</u>	<u>Delivery Date</u>		<u>Total Prior to FY 2002</u>	<u>Budget FY 2002</u>	<u>Budget FY 2003</u>	<u>Budget FY 2004</u>	<u>Budget to Complete</u>	<u>Total Program</u>
Project 4595										

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

(U) Government Furnished Property Continued:

<u>Item</u> <u>Description</u>	<u>Contract</u> <u>Method/Type</u> <u>or Funding</u> <u>Vehicle</u>	<u>Award or</u> <u>Obligation</u> <u>Date</u>	<u>Delivery</u> <u>Date</u>	<u>Total Prior</u> <u>to FY 2002</u>	<u>Budget</u> <u>FY 2002</u>	<u>Budget</u> <u>FY 2003</u>	<u>Budget</u> <u>FY 2004</u>	<u>Budget to</u> <u>Complete</u>	<u>Total</u> <u>Program</u>
<u>Product Development Property</u>									
Not Applicable									
<u>Support and Management Property</u>									
Not Applicable									
<u>Test and Evaluation Property</u>									
Not Applicable									
				<u>Total Prior</u>	<u>Budget</u>	<u>Budget</u>	<u>Budget</u>	<u>Budget to</u>	<u>Total</u>
<u>Subtotals</u>				<u>to FY 2002</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>FY 2004</u>	<u>Complete</u>	<u>Program</u>
Subtotal Product Development				58,141	19,176	18,449	16,284	8,755	120,805
Subtotal Support and Management				5,057	1,354	1,551	1,523	3,285	12,770
Subtotal Test and Evaluation				7,516	100	2,910	2,826	6,181	19,533
Total Project				70,714	20,630	22,910	20,633	18,221	153,108