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PE NUMBER: 0207134F
 PE TITLE: F-15E SQUADRONS

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 0207134F F-15E SQUADRONS
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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	70.749	122.436	115.246	96.590	100.129	98.085	99.577	Continuing	TBD
0131 Initial Operational Test and Evaluation	70.749	122.436	115.246	96.590	100.129	98.085	99.577	Continuing	TBD

(U) A. Mission Description and Budget Item Justification

The F-15E is the most versatile fighter in the world today. Configured with conformal fuel tanks (CFTs), the F-15E can deploy worldwide with minimal tanker support and arrive combat-ready. The F-15E retains air superiority capability and adds systems, such as Low Altitude Navigation and Targeting Infrared for Night (LANTIRN), to meet the requirement for all-weather, deep penetration, and night/under-the-weather, air-to-surface attack. The F-15E's avionics, armament, airframe, and engines must be improved to maintain its superiority against the threat well into the 21st century. The threat includes a new generation of aircraft possessing all-weather detection and kill capabilities. Avionics updates (exploiting proven technological advances) will be incorporated into the F-15E providing expanded capability and supporting a fully integrated electronic warfare suite. This will increase the offensive and defensive capability and survivability of the F-15E. In addition to funding special studies and proposal prep, the F-15E PE also funds RDT&E activities for PE 0207130F, F-15A-D.

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

	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>
(U) Previous President's Budget	60.363	112.085	115.547
(U) Current PBR/President's Budget	70.749	122.436	115.246
(U) Total Adjustments	10.386	10.351	
(U) Congressional Program Reductions	0.000		
Congressional Rescissions		-1.049	
Congressional Increases		11.400	
Reprogrammings	12.725		
SBIR/STTR Transfer	-2.339		

(U) Significant Program Changes:

Funding (FY03):

FY03 increase from reprogramming action for continued EW Development on Miniature Air Launched Decoy Program.

Funding (FY04):

FY04 increase from Congressional Marks in support of F-15 C/D Radar Block Upgrade, Advanced Display Core Processor (ADCP) Development and Radar Warning

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Receiver Upgrades.

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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	
0131 Initial Operational Test and Evaluation	70.749	122.436	115.246	96.590	100.129	98.085	99.577	Continuing	TBD	
Quantity of RDT&E Articles	0	0	0	0	0	0	0			

(U) A. Mission Description and Budget Item Justification

The F-15E is the most versatile fighter in the world today. Configured with conformal fuel tanks (CFTs), the F-15E can deploy worldwide with minimal tanker support and arrive combat-ready. The F-15E retains air superiority capability and adds systems, such as Low Altitude Navigation and Targeting Infrared for Night (LANTIRN), to meet the requirement for all-weather, deep penetration, and night/under-the-weather, air-to-surface attack. The F-15E's avionics, armament, airframe, and engines must be improved to maintain its superiority against the threat well into the 21st century. The threat includes a new generation of aircraft possessing all-weather detection and kill capabilities. Avionics updates (exploiting proven technological advances) will be incorporated into the F-15E providing expanded capability and supporting a fully integrated electronic warfare suite. This will increase the offensive and defensive capability and survivability of the F-15E. In addition to funding special studies and proposal prep, the F-15E PE also funds RDT&E activities for PE 0207130F, F-15A-D.

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

	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>
(U) Operational Flight Program (OFP) development efforts.	33.039	54.699	82.008
(U) Flight testing of improvements initiated in prior years.	12.522	18.730	19.638
(U) Development of ADCP (formerly OFP effort).	12.480	15.619	
(U) Integration of Joint Helmet Mounted Cueing System (JHMCS).	0.273	0.104	
(U) Development of Tactical Electronic Warfare System (TEWS) Intermediate Support System (TISS) Technology Insertion Program (TTIP)		6.775	6.000
(U) Development of Radar Warning Receiver Upgrade		2.304	5.000
(U) F-15C/D Active Electronically Scanned Array (AESA) Radar Block Upgrade	10.100	21.605	0.000
(U) F-15E AESA Radar Block Upgrade	0.400	0.500	0.500
(U) Mission Support, Other Government Cost	1.935	2.100	2.100
(U) Total Cost	70.749	122.436	115.246

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

	<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>
	Actual	Estimate	Estimate	Estimate	Estimate	Estimate	Estimate	Complete	
(U) AF RDT&E									
(U) Other APPN									
(U) Aircraft Procurement (3010F),									

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

Line Item 5, F-15E (PE27134F) [BP 10] Aircraft Procurement (3010F),										
(U)	Line Item 27, F-15A-E (PEs 27130F and 27134F) [BP 11] Aircraft Procurement (3010F)	272.771	192.493	111.411	108.628	66.930	36.948	5.778	Continuing	TBD
(U)	F-15E (PE84731F) General Skills Training [BP11] Aircraft Procurement (3010F)	1.263								1.263
(U)	F-15 (PE27434F) Link 16 Support and Sustainment [BP11] Aircraft Procurement (3010F)		0.040							
(U)	F-15E (PE89731F) Training Support to Units [BP11] Aircraft Procurement (3010F),				2.061	1.260			Continuing	TBD
(U)	Line Item 66, F-15A-E [BP 13] Aircraft Procurement (3010F)	7.279	7.238	13.407	12.927	103.527	1.001	2.406	Continuing	TBD
(U)	F-15E (PE27445F) Fighter Tactical Data Link [BP11]		7.755	70.191	66.524	40.344				

(U) D. Acquisition Strategy

Program is a continuation of effort which includes the development of all F-15 models. Funds are executed organically in support of equipment improvement, study, analysis, and test.

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Exhibit R-3, RDT&E Project Cost Analysis

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(U) <u>Cost Categories</u> (Tailor to WBS, or System/Item Requirements) (\$ in Millions)	<u>Contract Method & Type</u>	<u>Performing Activity & Location</u>	<u>Total</u> Prior to FY 2003 Cost	<u>FY</u> 2003 Cost	<u>FY</u> 2003 Award Date	<u>FY</u> 2004 Cost	<u>FY</u> 2004 Award Date	<u>FY</u> 2005 Cost	<u>FY</u> 2005 Award Date	<u>Cost to Complete</u>	<u>Total</u> Cost	<u>Target</u> Value of Contract
(U) <u>Product Development</u>												
OFP Suite 4/5/6/7 Development	CPAF	Boeing, St Louis	184.013	33.039		54.699		82.008		Continuing	TBD	
Boeing (JHMCS A-D)	CPAF	Boeing, St Louis	9.483	0.273	Mar-03	0.104	Feb-04			0.000	9.860	
Smart Weapons Integration	CPAF		14.929							0.000	14.929	
ADP(E)	CPAF		2.846							0.000	2.846	
ADCP(E)	CPAF	Boeing, St Louis	23.941	12.480	Mar-03	15.619	Jan-04			0.000	52.040	
NGA (ALQ-135 Band 1.5)	FFP		35.440							0.000	35.440	
Link-16 Data Link	CPAF		19.400							0.000	19.400	
TISS TTIP	CPFF		0.000			6.775	Feb-04	6.000	Feb-05	0.000	12.775	
Boeing/Raytheon ECCM	CPAF		1.194							0.000	1.194	
F-15 C/D AESA Radar Block Upgrade	CPFF	Boeing, St Louis	3.000	10.100	Jul-03	21.605	Feb-04			0.000	34.705	
F-15 E AESA Radar Block Upgrade	CPFF	Boeing, St Louis	3.931	0.400	Jan-04	0.500	Jun-04	0.500	Jan-05		5.331	
Radar Warning Receiver Upgrade	TNM	Boeing, St Louis	0.000			2.304	Jun-04	5.000	Feb-05		7.304	
Subtotal Product Development			298.177	56.292		101.606		93.508		Continuing	TBD	0.000
Remarks:												
(U) <u>Support</u>												
(Msn Spt) Misc.		WPAFB, OH	16.708	1.935		2.100		2.100		0.000	22.843	
Subtotal Support			16.708	1.935		2.100		2.100		0.000	22.843	0.000
Remarks:												
(U) <u>Test & Evaluation</u>												
Boeing (Flt Test)	FFP	Boeing, St Louis	65.472	10.665	Mar-03	12.500	Mar-04	12.500	Mar-05	Continuing	TBD	
Edwards	PO	Edwards AFB, CA	45.357	0.100	Mar-03	0.200	Mar-04	0.200	Mar-05	Continuing	TBD	
Eglin (Flt Test)	PO	Eglin AFB, FL	14.659	1.757	Mar-03	6.030	Feb-04	6.938	Feb-05	Continuing	TBD	
Subtotal Test & Evaluation			125.488	12.522		18.730		19.638		Continuing	TBD	0.000
Remarks:												
(U) <u>Management</u>												
Subtotal Management			0.000	0.000		0.000		0.000		0.000	0.000	0.000
Remarks:												

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(U) Total Cost

440.373	70.749	122.436	115.246	Continuing	TBD	0.000
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Exhibit R-4, RDT&E Schedule Profile

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F-15A-D Modernization



The Best Fighter, Anytime, Anyplace

Program	Mod #	F Y03	F Y04	F Y05	F Y06	F Y07	F Y08	F Y09	F Y10	F Y11
220E Engine	19203B	████████████████████								
ALE-58	8660	██████████	██████████			██████████	██████████	██████████	██████████	██████████
APG-63(V)1	8049	████████████████████								
DVR *	8703				██████████	██████████				
EGI	8701		██████████	██████████	██████████	██████████				
IFF / AAI *	8745		██████████	██████████	██████████	██████████				
JHMCS	8352	██████████	██████████	██████████	██████████	██████████				
Link 16 / FDL *	8250	██████████	██████████							
Secondary Power	10211B	████████████████████								
VHF Radios *	8750		██████████	██████████						
8MM*	8747	██████████	██████████							
VHSIC+	N/A				██████████	██████████	██████████			
OFP Updates		██████████		S5M			S6M			
		DEV			Prod			Install		IOC

Advancing the Legacy

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F-15E Modernization



The Best Fighter, Anytime, Anyplace

Program	Mod #	FY03	FY04	FY05	FY06	FY07	FY08	FY09	FY10	FY11
ADCP	8357	█	█		█	█	█	█		
ADP	8314	█	█	█	█	█	█			
Band 1.5	8419	█	█							
DMS	8237	█								
DVR *	8705				█	█	█	█		
IFF / AAI *	8746			█	█	█	█			
Link 16 / FDL *	8420	█	█							
PACS-45	8265	█	█	█	█	█	█			
Secondary Power	6106	█	█	█						
TEWS Mods	N/A	█	█							
TISS TIP	8742		█	█	█	█	█			
VHF Radios *	8750		█	█						
BMM *	8757	█	█							
OPF Updates		S4+E		S5E			S6E			
		DEV			Prod		Install		IOC	

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Exhibit R-4a, RDT&E Schedule Detail	DATE February 2004
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	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>
(U) Schedule Profile			
(U) Smart Weapons DT&E complete	1Q		
(U) OFP Suite 5 DT&E - start		3Q	
(U) OFP Suite 5 DT&E - complete			1Q
(U) OFP Suite 5 CDR-MSIP	3Q		
(U) OFP Suite 5 CDR-E	2Q		
(U) OFP Suite 6 Phase 1 Start		3Q	
(U) ADCP EMD Flight Test Start	3Q		
(U) ADCP EMD Flight Test Complete		1Q	
(U) ADCP Tech Roll Flight Test Start		4Q	
(U) ADCP Tech Roll Flight Test Complete			1Q
(U) ADCP P3I Start	4Q		
(U) ADCP P3I complete			2Q
(U) ECCM EMD complete	3Q		
(U) Flight Test Radar Instrumentation Upgrade Start	1Q		
(U) Flight Test Radar Instrumentation Upgrade Complete			3Q
(U) TISS Replacement EMD start		2Q	