

UNCLASSIFIED

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

Exhibit R-2, RDT&E Budget Item Justification								DATE February 2006																																					
BUDGET ACTIVITY 07 Operational System Development				PE NUMBER AND TITLE 0207134F F-15E SQUADRONS																																									
Cost (\$ in Millions)	FY 2005 Actual	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	127.112	143.572	125.062	105.903	234.214	159.959	117.187	Continuing	TBD																																				
0131 Initial Operational Test and Evaluation	127.112	143.572	125.062	105.903	234.214	159.959	117.187	Continuing	TBD																																				
<p>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 0605807F.</p> <p>(U) <u>A. Mission Description and Budget Item Justification</u></p> <p>The F-15 is the most versatile fighter in the world today. The F-15A-D continues to guarantee air superiority with an undefeated and unmatched aerial combat record. The F-15E retains air superiority capability and adds systems, such as advanced imaging and targeting systems, to meet the requirement for all-weather, deep penetration, and night/under-the-weather, air-to-surface attack. Configured with conformal fuel tanks (CFTs), the F-15E can deploy worldwide with minimal tanker support and arrive combat-ready. The F-15's avionics, armament, airframe and engines must continue to be upgraded to improve supportability and maintain its superiority against all threats. These threats include a new generation of aircraft possessing all-weather detection and kill capabilities as well as sophisticated "double-digit" anti-aircraft missile systems. Avionics updates (exploiting proven technological advances or demonstrating new technology) including radar modernization, precision registration systems implemented through data server storage technology, and a fully integrated electronic warfare suite hold the promise of providing expanded capability. All improvements are linked to an aircraft operational flight program update schedule which works to integrate new capabilities with the airframe. These updates will increase the offensive and defensive capability and survivability of the F-15. Furthermore, incorporation of corresponding spiral and/or phased technology/equipment improvements that include support equipment and training device upgrades improves performance, supportability, and LRU throughput.</p> <p>The F-15E program, PE 0207134F, is assigned budget activity (BA) code 07 because this developmental work upgrades an existing weapons system.</p> <p>(U) <u>B. Program Change Summary (\$ in Millions)</u></p> <table style="width: 100%; margin-top: 10px;"> <thead> <tr> <th></th> <th style="text-align: center;"><u>FY 2005</u></th> <th style="text-align: center;"><u>FY 2006</u></th> <th style="text-align: center;"><u>FY 2007</u></th> </tr> </thead> <tbody> <tr> <td>(U) Previous President's Budget</td> <td style="text-align: center;">131.279</td> <td style="text-align: center;">124.647</td> <td style="text-align: center;">124.694</td> </tr> <tr> <td>(U) Current PBR/President's Budget</td> <td style="text-align: center;">127.112</td> <td style="text-align: center;">143.572</td> <td style="text-align: center;">125.062</td> </tr> <tr> <td>(U) Total Adjustments</td> <td style="text-align: center;">-4.167</td> <td style="text-align: center;">18.925</td> <td></td> </tr> <tr> <td>(U) Congressional Program Reductions</td> <td></td> <td></td> <td></td> </tr> <tr> <td style="padding-left: 20px;">Congressional Rescissions</td> <td style="text-align: center;">-0.775</td> <td style="text-align: center;">-2.075</td> <td></td> </tr> <tr> <td style="padding-left: 20px;">Congressional Increases</td> <td></td> <td style="text-align: center;">21.000</td> <td></td> </tr> <tr> <td style="padding-left: 20px;">Reprogrammings</td> <td></td> <td></td> <td></td> </tr> <tr> <td style="padding-left: 20px;">SBIR/STTR Transfer</td> <td style="text-align: center;">-3.392</td> <td></td> <td></td> </tr> </tbody> </table> <p>(U) <u>Significant Program Changes:</u></p> <p style="padding-left: 20px;">Funding (FY06):</p>											<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>	(U) Previous President's Budget	131.279	124.647	124.694	(U) Current PBR/President's Budget	127.112	143.572	125.062	(U) Total Adjustments	-4.167	18.925		(U) Congressional Program Reductions				Congressional Rescissions	-0.775	-2.075		Congressional Increases		21.000		Reprogrammings				SBIR/STTR Transfer	-3.392		
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FY06 Congressional adds in support of BOL (\$9.500M) and AESA Demonstration (\$11.500M).

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Exhibit R-2a, RDT&E Project Justification

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07 Operational System Development

PE NUMBER AND TITLE

0207134F F-15E SQUADRONS

PROJECT NUMBER AND TITLE

0131 Initial Operational Test and Evaluation

Cost (\$ in Millions)	FY 2005 Actual	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate	Cost to Complete	Total
0131 Initial Operational Test and Evaluation	127.112	143.572	125.062	105.903	234.214	159.959	117.187	Continuing	TBD
Quantity of RDT&E Articles	0	0	0	0	0	0	0		

(U) **A. Mission Description and Budget Item Justification**

The F-15 is the most versatile fighter in the world today. The F-15A-D continues to guarantee air superiority with an undefeated and unmatched aerial combat record. The F-15E retains air superiority capability and adds systems, such as advanced imaging and targeting systems, to meet the requirement for all-weather, deep penetration, and night/under-the-weather, air-to-surface attack. Configured with conformal fuel tanks (CFTs), the F-15E can deploy worldwide with minimal tanker support and arrive combat-ready. The F-15's avionics, armament, airframe and engines must continue to be upgraded to improve supportability and maintain its superiority against all threats. These threats include a new generation of aircraft possessing all-weather detection and kill capabilities as well as sophisticated "double-digit" anti-aircraft missile systems. Avionics updates (exploiting proven technological advances or demonstrating new technology) including radar modernization, precision registration systems implemented through data server storage technology, and a fully integrated electronic warfare suite hold the promise of providing expanded capability. All improvements are linked to an aircraft operational flight program update schedule which works to integrate new capabilities with the airframe. These updates will increase the offensive and defensive capability and survivability of the F-15. Furthermore, incorporation of corresponding spiral and/or phased technology/equipment improvements that include support equipment and training device upgrades improves performance, supportability, and LRU throughput.

The F-15E program, PE 0207134F, is assigned budget activity (BA) code 07 because this developmental work upgrades an existing weapons system.

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

	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>
(U) Operational Flight Program (OFP) development efforts.	78.598	62.922	70.392
(U) Flight testing of improvements initiated in prior years.	13.164	16.580	22.670
(U) Development of ADCP (formerly OFP effort).	6.350	2.000	
(U) Development of Tactical Electronic Warfare System (TEWS) Intermediate Support System (TISS) Technology Insertion Program (TTIP)	6.426	7.170	2.800
(U) Development of Radar Warning Receiver Upgrade	3.211		
(U) Mode S/5 IFF Development Efforts		17.200	16.000
(U) F-15 BOL PVI		9.500	
(U) F-15C/D Active Electronically Scanned Array (AESA) Radar Block Upgrade	14.935	24.900	
(U) F-15E AESA Radar Block Upgrade	0.465	1.000	6.000
(U) F-15 Avionics Replacement development efforts			4.900
(U) Mission Support, Other Government Cost	3.963	2.300	2.300
(U) Total Cost	127.112	143.572	125.062

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Exhibit R-2a, RDT&E Project Justification							DATE February 2006		
BUDGET ACTIVITY 07 Operational System Development				PE NUMBER AND TITLE 0207134F F-15E SQUADRONS			PROJECT NUMBER AND TITLE 0131 Initial Operational Test and Evaluation		
(U) C. Other Program Funding Summary (\$ in Millions)									
	<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>Complete</u>	
(U) AF RDT&E									
(U) Other APPN									
(U) Aircraft Procurement (3010F), Line Item 5, F-15E (PE0207134F) [BP 10]	108.233	64.136							172.369
(U) Aircraft Procurement (3010F), Line Item 27, F-15A-E (PEs 0207130F and 0207134F) [BP 11]	134.969	153.180	49.755	41.351	90.384	158.200	142.124	Continuing	TBD
(U) Aircraft Procurement (3010F) F-15E (PE0804731F) General Skills Training [BP11]									1.263
(U) Aircraft Procurement (3010F) F-15 (PE0207434F) Link 16 Support and Sustainment [BP11]									
(U) Aircraft Procurement (3010F) F-15E (PE0809731F) Training Support to Units [BP11]		2.072	1.306					Continuing	TBD
(U) Aircraft Procurement (3010F), Line Item 66, F-15A-E [BP 13]	13.112	12.995	10.741	1.039	2.524	2.589	2.622	Continuing	TBD
(U) Aircraft Procurement (3010F) F-15E (PE0207445F) Fighter Tactical Data Link [BP11]	69.122	66.869	41.840						177.831
(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.									
Project 0131 R-1 Shopping List - Item No. 131-4 of 131-9 Exhibit R-2a (PE 0207134F)									

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Exhibit R-3, RDT&E Project Cost Analysis

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PROJECT NUMBER AND TITLE

0131 Initial Operational Test and Evaluation

(U) <u>Cost Categories</u> (Tailor to WBS, or System/Item Requirements) (\$ in Millions)	<u>Contract</u> <u>Method &</u> <u>Type</u>	<u>Performing</u> <u>Activity &</u> <u>Location</u>	<u>Total</u> <u>Prior to FY</u> <u>2005</u> <u>Cost</u>	<u>FY 2005</u> <u>Cost</u>	<u>FY 2005</u> <u>Award</u> <u>Date</u>	<u>FY 2006</u> <u>Cost</u>	<u>FY 2006</u> <u>Award</u> <u>Date</u>	<u>FY 2007</u> <u>Cost</u>	<u>FY 2007</u> <u>Award</u> <u>Date</u>	<u>Cost to</u> <u>Complete</u>	<u>Total Cost</u>	<u>Target Value</u> <u>of Contract</u>
(U) <u>Product Development</u>												
OFP Suite 4/5/6/7 Development and Test	CPAF	Boeing, St Louis		78.598		62.922		70.392		Continuing	TBD	
Boeing (JHMCS A-D)	CPAF	Boeing, St Louis								0.000	0.000	
Smart Weapons Integration	CPAF									0.000	0.000	
ADP(E)	CPAF									0.000	0.000	
ADCP(E)	CPAF	Boeing, St Louis		6.350	Jan-05	2.000	Jan-06			0.000	8.350	
NGA (ALQ-135 Band 1.5)	FFP									0.000	0.000	
Link-16 Data Link	CPAF									0.000	0.000	
TISS TTIP	CPFF			6.426	Dec-04	7.170	Dec-05	2.800	Dec-06	0.000	16.396	
Boeing/Raytheon ECCM	CPAF									0.000	0.000	
F-15 C/D AESA Radar Block Upgrade	CPFF	Boeing, St Louis		14.935	Jun-05	24.900	Jun-06			0.000	39.835	
F-15 E AESA Radar Block Upgrade	CPFF	Boeing, St Louis		0.465	Jun-05	1.000	Jan-06	6.000	Jan-07	211.560	219.025	
Radar Warning Receiver Upgrade	TNM	Boeing, St Louis		3.211	Nov-05					0.000	3.211	
Mode S/5 IFF		Boeing, St. Louis				17.200	Feb-06	16.000	Jan-07	0.000	33.200	
F-15 BOL PVI		Boeing, St. Louis				9.500					9.500	
F-15 Avionics Replacement								4.900	Dec-06	10.086	14.986	
Subtotal Product Development			0.000	109.985		124.692		100.092		Continuing	TBD	0.000
Remarks:												
(U) <u>Support</u>												
(Msn Spt) Misc.		WPAFB, OH		3.963		2.300		2.300		Continuing	TBD	
Subtotal Support			0.000	3.963		2.300		2.300		Continuing	TBD	0.000
Remarks:												
(U) <u>Test & Evaluation</u>												
Boeing (Contractor Test Team)	FFP	Boeing, St Louis		6.942	Mar-05	10.155	Mar-06	13.200	Mar-07	Continuing	TBD	
Edwards	PO	Edwards AFB, CA		0.050	Mar-05	0.069	Mar-06	0.033	Mar-07	Continuing	TBD	
Eglin (Flt Test)	PO	Eglin AFB, FL		6.172	Feb-05	6.356	Mar-06	9.437	Mar-07	Continuing	TBD	
Subtotal Test & Evaluation			0.000	13.164		16.580		22.670		Continuing	TBD	0.000
Remarks:												
(U) <u>Management</u>												

Project 0131

R-1 Shopping List - Item No. 131-5 of 131-9

Exhibit R-3 (PE 0207134F)

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Exhibit R-3, RDT&E Project Cost Analysis						DATE February 2006			
BUDGET ACTIVITY 07 Operational System Development			PE NUMBER AND TITLE 0207134F F-15E SQUADRONS		PROJECT NUMBER AND TITLE 0131 Initial Operational Test and Evaluation				
Subtotal Management			0.000	0.000	0.000	0.000	0.000	0.000	
Remarks:									
(U)	Total Cost		0.000	127.112	143.572	125.062	Continuing	TBD	0.000
Project 0131			R-1 Shopping List - Item No. 131-6 of 131-9			Exhibit R-3 (PE 0207134F)			

Exhibit R-4, RDT&E Schedule Profile

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0131 Initial Operational Test and Evaluation



F-15A-D Modernization

U.S. AIR FORCE

Program	Prior	2005	2006	2007	2008	2009	2010	2011	Quantity
220E Engines	246	39	9 11 11						255+63
JHMCS	82	39	8 9 6 9	34	8				180+16
EGI	36	41	15 15 14 15	40	54				178+54T
APG-63(V)1	137	23	5 6 5 3						179
Radar Imp Pgm (V)3						TBD			1+6
VHF Radios / Antenna Deliveries-Installed by Field		397	63 120 81	64					289+108
IFF / AAI			2 0	149	154	53			178+54T+126
ALE-58 IRCM	113						104	74	178+113
NVIS Phase II			89	89					178
OFP Suite 5 / 6 / 7			S5		S6			S7	NA
Mode 5 IFF									NA
ESTS	62								62
DVR						89	89		178
		Development		Production		Installation			

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Exhibit R-4a, RDT&E Schedule Detail

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PROJECT NUMBER AND TITLE

0131 Initial Operational Test and
Evaluation

(U) <u>Schedule Profile</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>
(U) OFP Suite 5E Flight Test Complete		1Q	
(U) OFP Suite 5MSIP Flight Test Complete		2Q	
(U) OFP Suite 5E & MSIP Fielding		3Q	
(U) OFP Suite 6 Phase 1 Start	1Q		
(U) OFP Suite 6 Phase 1 Complete		2Q	
(U) OFP Suite 6 Phase II Start		2Q	
(U) OFP Suite 6 Phase II Flight Test Start			4Q
(U) ADCP EMD Flight Test Complete	1Q		
(U) ADCP Tech Roll Flight Test Start	1Q		
(U) ADCP Tech Roll Flight Test Complete	2Q		
(U) ADCP F3I complete		2Q	
(U) ADCP Tech Roll - Complete	2Q		
(U) Mode S/5 IFF - Start		2Q	
(U) F-15 C/D AESA Radar Block Upgrade Flight Test - Start		3Q	
(U) F-15 C/D AESA Radar Block Upgrade Flight Test - Complete			1Q
(U) TISS Hardware/Software Integration - Complete		4Q	
(U) TISS System Compatibility Test - Complete			1Q
(U) F-15 Avionics Replacement Start			1Q
(U) RWR - Lab Test Start		2Q	
(U) RWR - Lab Test Complete			3Q