

UNCLASSIFIED

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

Exhibit R-2, RDT&E Budget Item Justification

DATE

February 2005

BUDGET ACTIVITY

07 Operational System Development

PE NUMBER AND TITLE

0207134F F-15E SQUADRONS

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	120.483	131.279	124.647	124.694	104.674	231.009	157.941	115.793	Continuing	TBD
0131 Initial Operational Test and Evaluation	120.483	131.279	88.553	108.391	104.674	95.807	98.377	94.821	Continuing	TBD
4703 F-15E	0.000	0.000	36.094	16.303	0.000	135.202	59.564	20.972	0.000	0.000

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 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.

The F-15E program, PE 27134F, is assigned budget activity (BA) code 07 because this developmental work upgrades an existing weapons system.

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

	FY 2004	FY 2005	FY 2006	FY 2007
(U) Previous President's Budget	122.436	115.246	96.590	100.129
(U) Current PBR/President's Budget	120.483	131.279	124.647	124.694
(U) Total Adjustments	-1.953	16.033		
(U) Congressional Program Reductions		-1.167		
Congressional Rescissions				
Congressional Increases		17.200		
Reprogrammings	-0.849			
SBIR/STTR Transfer	-1.104			

(U) **Significant Program Changes:**

Funding (FY05):

FY05 congressional increases from FY05PBR to FY06PBR in support of the F-15 C/D Radar Block Upgrade (\$14.6M) and Radar Warning Receiver (\$2.6M)

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Funding (FY06):

FY06 Air Force increases from FY05PBR to FY06PBR in support of F-15 C/D Radar Block Upgrade (\$13.400M) and Mode S/5 IFF for CAF Aircraft (\$22.500M). FY06 Air Force program reduction of \$4.839M for Test & Evaluation funding realignment.

Funding (FY07):

FY07 Air Force increases from FY05PBR to FY06PBR in support of F-15C Avionics Replacement (\$4.900M) and Mode S/5 IFF for CAF Aircraft (\$16.000M).

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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 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
0131 Initial Operational Test and Evaluation	120.483	131.279	88.553	108.391	104.674	95.807	98.377	94.821	Continuing	TBD
Quantity of RDT&E Articles	0	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.

The F-15E program, PE 27134F, 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 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>
(U) Operational Flight Program (OFP) development efforts.	59.394	77.822	60.619	76.731
(U) Flight testing of improvements initiated in prior years.	17.548	17.863	18.134	20.760
(U) Development of ADCP (formerly OFP effort).	13.500	10.056		
(U) Development of Tactical Electronic Warfare System (TEWS) Intermediate Support System (TISS) Technology Insertion Program (TTIP)	3.597	6.426	7.200	2.800
(U) Development of Radar Warning Receiver Upgrade	2.294	2.496		
(U) F-15C/D Active Electronically Scanned Array (AESA) Radar Block Upgrade	21.605	14.016		
(U) F-15E AESA Radar Block Upgrade	0.500	0.500	0.500	0.500
(U) F-15 Avonics Replacement development efforts				4.900
(U) Mission Support, Other Government Cost	2.045	2.100	2.100	2.700
(U) Total Cost	120.483	131.279	88.553	108.391

(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) Aircraft Procurement										

Project 0131

R-1 Shopping List - Item No. 131-3 of 131-15

Exhibit R-2a (PE 0207134F)

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Exhibit R-2a, RDT&E Project Justification									DATE February 2005		
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) <u>C. Other Program Funding Summary (\$ in Millions)</u>											
(3010F), Line Item 5, F-15E (PE27134F) [BP 10] Aircraft Procurement											
(U)	(3010F), Line Item 27, F-15A-E (PEs 27130F and 27134F) [BP 11] Aircraft Procurement (3010F)	180.250	138.667	81.644	57.567	78.632	51.586	126.487	140.027	Continuing	TBD
(U)	F-15E (PE84731F) General Skills Training [BP11] Aircraft Procurement (3010F)										1.263
(U)	F-15 (PE27434F) Link 16 Support and Sustainment [BP11] Aircraft Procurement (3010F)	0.040									0.040
(U)	F-15E (PE89731F) Training Support to Units [BP11] Aircraft Procurement			2.100	1.285					Continuing	TBD
(U)	(3010F), Line Item 66, F-15A-E [BP 13] Aircraft Procurement (3010F)	7.041	13.202	13.170	10.565	1.024	2.489	2.551	2.581	Continuing	TBD
(U)	F-15E (PE27445F) Fighter Tactical Data Link [BP11]	7.755	69.122	67.774	41.155						185.806
(U) <u>D. Acquisition Strategy</u> 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												DATE February 2005		
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) 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) Product Development														
OFP Suite 4/5/6/7 Development	CPAF	Boeing, St Louis	217.052	59.394		77.822		60.619		76.731		Continuing	TBD	
Boeing (JHMCS A-D)	CPAF	Boeing, St Louis	9.756	0.000								0.000	9.756	
Smart Weapons Integration	CPAF		14.929	0.000								0.000	14.929	
ADP(E)	CPAF		2.846	0.000								0.000	2.846	
ADCP(E)	CPAF	Boeing, St Louis	36.421	13.500	Jun-04	10.056	Dec-04					0.000	59.977	
NGA (ALQ-135 Band 1.5)	FFP		35.440	0.000								0.000	35.440	
Link-16 Data Link	CPAF		19.400	0.000								0.000	19.400	
TISS TTIP	CPFF		0.000	3.597	Feb-04	6.426	Dec-04	7.200	Dec-05	2.800	Dec-06	0.000	20.023	
Boeing/Raytheon ECCM	CPAF		1.194	0.000								0.000	1.194	
F-15 C/D AESA Radar Block Upgrade	CPFF	Boeing, St Louis	13.100	21.605	Feb-04	14.016	Jun-05					0.000	48.721	
F-15 E AESA Radar Block Upgrade	CPFF	Boeing, St Louis	4.331	0.500	Jun-04	0.500	Jun-05	0.500	Jun-06	0.500	Jun-07	211.560	217.891	
Radar Warning Receiver Upgrade	TNM	Boeing, St Louis	0.000	2.294	Sep-04	2.496	Apr-05					0.000	4.790	
Mode S/5 IFF												0.000	0.000	
F-15 Avionics Replacement										4.900	Dec-06	10.086	14.986	
Subtotal Product Development			354.469	100.890		111.316		68.319		84.931		Continuing	TBD	0.000
Remarks:														
(U) Support														
(Msn Spt) Misc.		WPAFB, OH	18.643	2.045		2.100		2.100		2.700		Continuing	TBD	
Subtotal Support			18.643	2.045		2.100		2.100		2.700		Continuing	TBD	0.000
Remarks:														
(U) Test & Evaluation														
Boeing (Flt Test)	FFP	Boeing, St Louis	76.137	12.500		13.200	Mar-05	13.200	Mar-06	13.200		Continuing	TBD	
Edwards	PO	Edwards AFB, CA	45.457	0.200		0.200	Mar-05					Continuing	TBD	
Eglin (Flt Test)	PO	Eglin AFB, FL	16.416	4.848		4.463	Feb-05	4.934	Feb-06	7.560		Continuing	TBD	
Subtotal Test & Evaluation			138.010	17.548		17.863		18.134		20.760		Continuing	TBD	0.000
Remarks:														
(U) Management														
Subtotal Management			0.000	0.000		0.000		0.000		0.000		0.000	0.000	0.000
Remarks:														
Project 0131														
			R-1 Shopping List - Item No. 131-5 of 131-15										Exhibit R-3 (PE 0207134F)	

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Exhibit R-3 (PE 0207134F)

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Exhibit R-3, RDT&E Project Cost Analysis										DATE February 2005		
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) Total Cost					511.122	120.483	131.279	88.553	108.391	Continuing	TBD	0.000

February 2005

PROJECT NUMBER AND TITLE
**0131 Initial Operational Test and
Evaluation**

(FY06 PBR)



February 2005

PROJECT NUMBER AND TITLE
**0131 Initial Operational Test and
Evaluation**

[illegible]

Exhibit R-4 (PE 0207134F)

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Exhibit R-4a, RDT&E Schedule Detail

DATE

February 2005

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) **Schedule Profile**

	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>
(U) OFP Suite 5E Flight Test Start	3Q			
(U) OFP Suite 5MSIP Flight Test Start	4Q			
(U) OFP Suite 5E & MSIP Flight Test Complete		4Q		
(U) OFP Suite 5E & MSIP Fielding			1Q	
(U) OFP Suite 6 Phase 1 Start	4Q			
(U) OFP Suite 6 Phase 1 Complete			2Q	
(U) OFP Suite 6 Phase II Start			1Q	
(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		1Q		
(U) ADCP F3I complete		2Q		
(U) ADCP Tech Roll - Complete		4Q		
(U) Flight Test Radar Instrumentation Upgrade Complete		3Q		
(U) TISS EMD Replacement - Start	2Q			
(U) TISS Hardware/Software Integration - Complete			2Q	
(U) TISS System Compatibility Test - Complete				1Q
(U) F-15 Avionics Replacement Start				1Q
(U) RWR - Lab Test Start		3Q		
(U) RWR - Lab Test Complete		4Q		

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Exhibit R-2a, RDT&E Project Justification

DATE

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BUDGET ACTIVITY					PE NUMBER AND TITLE			PROJECT NUMBER AND TITLE		
07 Operational System Development					0207134F F-15E SQUADRONS			4703 F-15E		
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
4703 F-15E	0.000	0.000	36.094	16.303	0.000	135.202	59.564	20.972	0.000	0.000
Quantity of RDT&E Articles	0	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. The program titled "F-15C/D Active Electronically Scanned Array (AESA) Radar Block Upgrade" is not a new start; it has been a funded program in BPAC 670131 since FY 2002, and the FY 2006 funding in this BPAC will complete the effort.

The F-15E program, PE 27134F, 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 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>
(U) F-15 C/D Active Electronically Scanned Array (AESA) Radar Block Upgrade			13.497	
(U) Mode S/5 IFF development efforts			22.597	16.303
(U) Total Cost	0.000	0.000	36.094	16.303

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

	<u>FY 2004 Actual</u>	<u>FY 2005 Estimate</u>	<u>FY 2006 Estimate</u>	<u>FY 2007 Estimate</u>	<u>FY 2008 Estimate</u>	<u>FY 2009 Estimate</u>	<u>FY 2010 Estimate</u>	<u>FY 2011 Estimate</u>	<u>Cost to Complete</u>	<u>Total Cost</u>
(U) Aircraft Procurement (3010F), Line Item 27, F-15A-E (PEs 27130F and 27134F) [BP 11]	180.250	138.667	81.644	57.567	78.632	51.586	126.487	140.027	Continuing	TBD
(U) Aircraft Procurement (3010F) F-15 (PE27434F) Link 16 Support and Sustainment [BP11]	0.040									
(U) Aircraft Procurement (3010F) F-15E (PE89731F) Training			2.100	1.285						

Project 4703

R-1 Shopping List - Item No. 131-10 of 131-15

Exhibit R-2a (PE 0207134F)

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Exhibit R-2a, RDT&E Project Justification

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BUDGET ACTIVITY

07 Operational System Development

PE NUMBER AND TITLE

0207134F F-15E SQUADRONS

PROJECT NUMBER AND TITLE

4703 F-15E

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

Support to Units [BP11]

Aircraft Procurement

(U)	(3010F), Line Item 66, F-15A-E [BP 13]	7.041	13.202	13.170	10.565	1.024	2.489	2.551	2.581	Continuing	TBD
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Aircraft Procurement (3010F)

(U)	F-15E (PE27445F) Fighter Tactical Data Link [BP11]	7.755	69.122	67.774	41.155						185.806
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(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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07 Operational System Development

PE NUMBER AND TITLE

0207134F F-15E SQUADRONS

PROJECT NUMBER AND TITLE

4703 F-15E

(U) Cost Categories (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>2004</u> <u>Cost</u>	<u>FY 2004</u> <u>Cost</u>	<u>FY 2004</u> <u>Award</u> <u>Date</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</u> <u>Value of</u> <u>Contract</u>
(U) <u>Product Development</u>														
F-15 C/D AESA Radar Block Upgrade	CPFF	Boeing, St Louis						13.497	Jun-06				13.497	
Mode S/5 IFF		Boeing, St Louis						22.597	Dec-05	16.303	Dec-06		38.900	
Subtotal Product Development			0.000	0.000		0.000		36.094		16.303		0.000	52.397	0.000
Remarks:														
(U) <u>Support</u>													0.000	
Subtotal Support			0.000	0.000		0.000		0.000		0.000		0.000	0.000	0.000
Remarks:														
(U) <u>Test & Evaluation</u>													0.000	
Subtotal Test & Evaluation			0.000	0.000		0.000		0.000		0.000		0.000	0.000	0.000
Remarks:														
(U) <u>Management</u>													0.000	
Subtotal Management			0.000	0.000		0.000		0.000		0.000		0.000	0.000	0.000
Remarks:														
(U) Total Cost			0.000	0.000		0.000		36.094		16.303		0.000	52.397	0.000

Exhibit R-4, RDT&E Schedule Profile

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February 2005

BUDGET ACTIVITY

07 Operational System Development

PE NUMBER AND TITLE

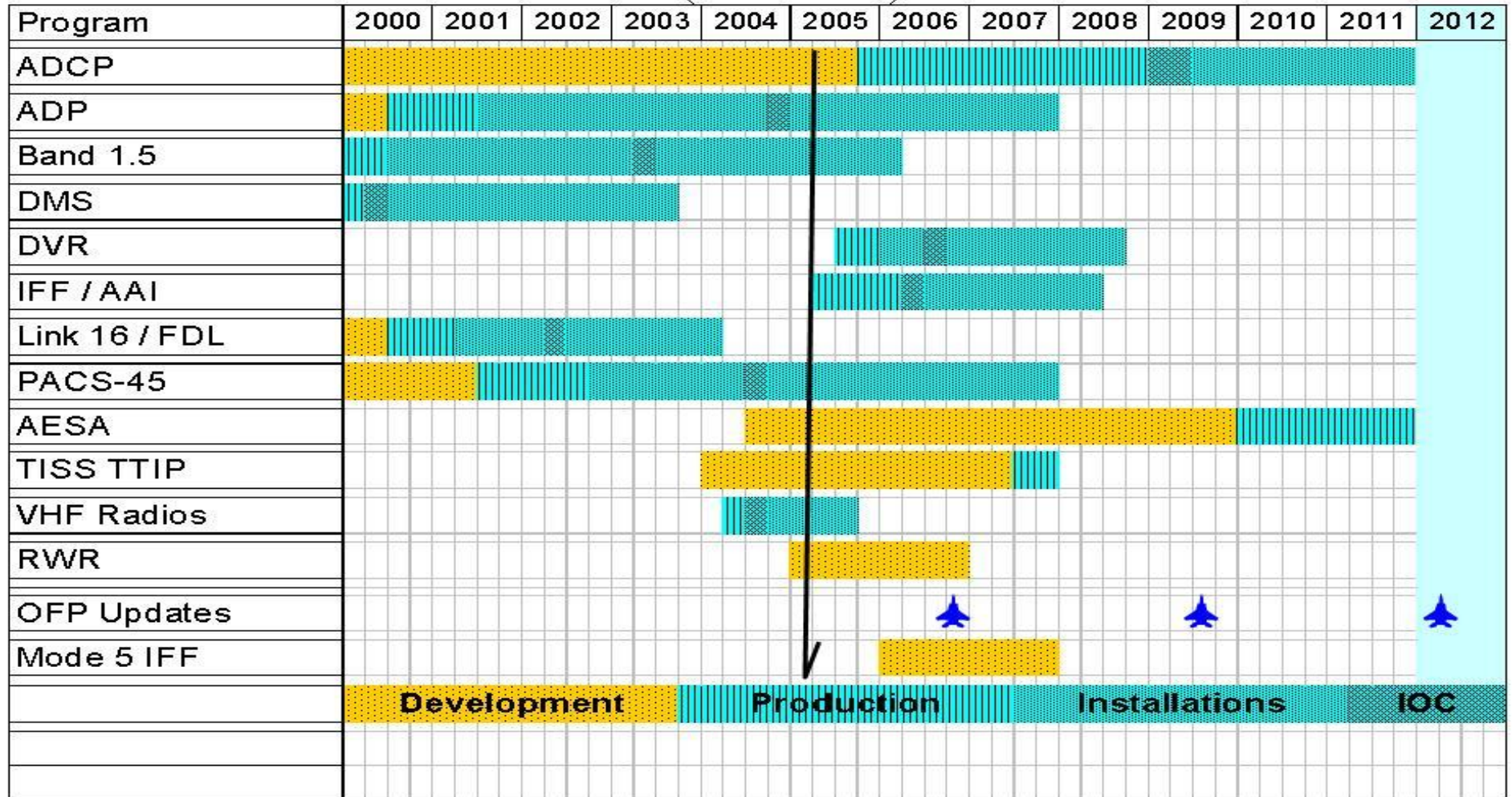
0207134F F-15E SQUADRONS

PROJECT NUMBER AND TITLE

4703 F-15E

F-15E Modernization

(FY06 PBR)



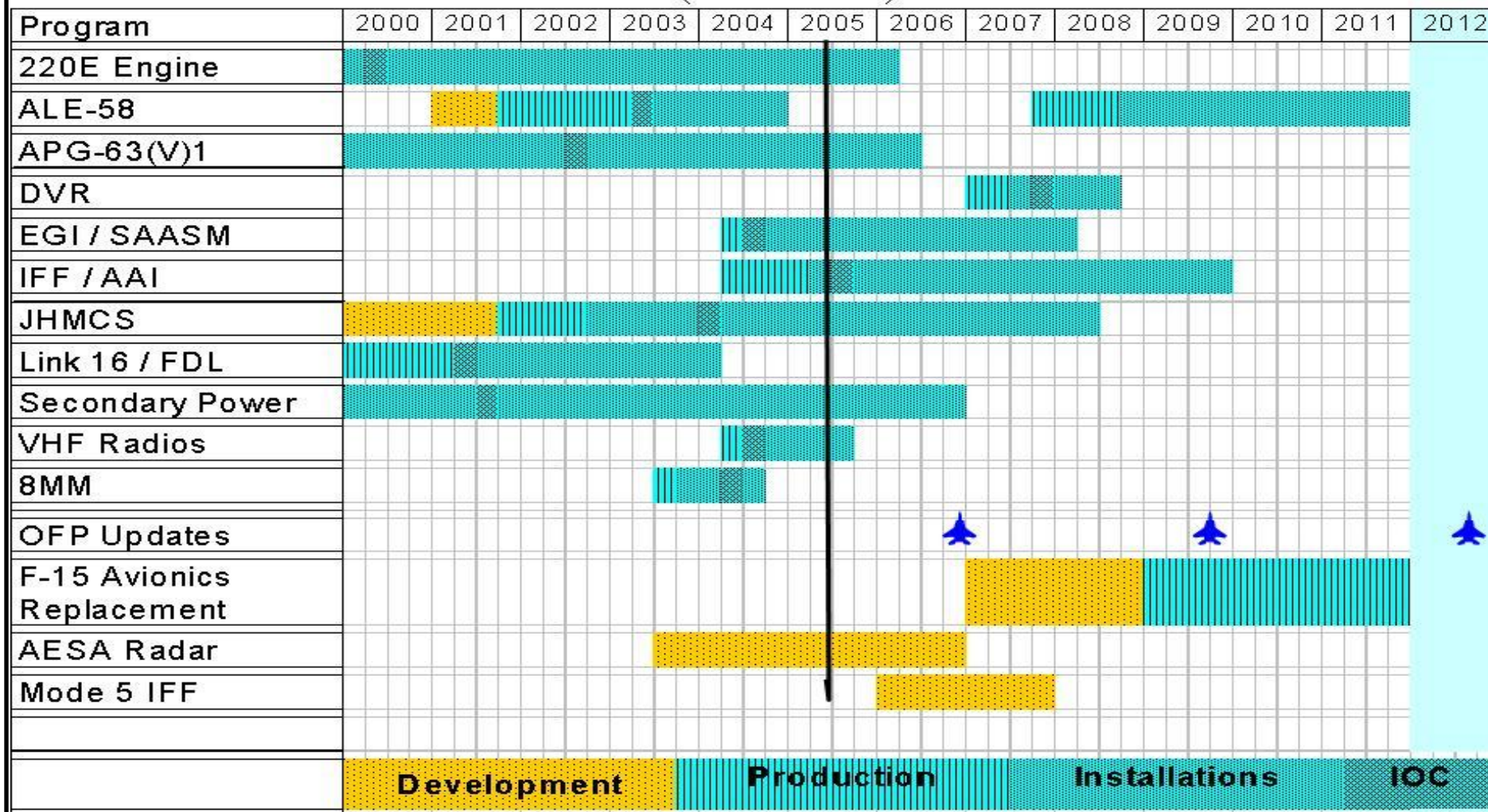
BUDGET ACTIVITY	
07 Operational System Development	

PE NUMBER AND TITLE
0207134F F-15E SQUADRONS

PROJECT NUMBER AND TITLE
4703 F-15E

F-15A-D Modernization

(FY06 PBR)



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Exhibit R-4a, RDT&E Schedule Detail

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BUDGET ACTIVITY

07 Operational System Development

PE NUMBER AND TITLE

0207134F F-15E SQUADRONS

PROJECT NUMBER AND TITLE

4703 F-15E

(U) Schedule ProfileFY 2004FY 2005FY 2006FY 2007

(U) Mode S/5 IFF - Start

1Q

(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

4Q