

**UNCLASSIFIED**

PE NUMBER: 0401130F  
 PE TITLE: C-17 Aircraft

<b>Exhibit R-2, RDT&amp;E Budget Item Justification</b>	DATE <b>February 2004</b>
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<b>BUDGET ACTIVITY</b> <b>07 Operational System Development</b>	<b>PE NUMBER AND TITLE</b> <b>0401130F C-17 Aircraft</b>
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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	155.805	183.913	199.692	141.141	166.101	119.989	154.049	0.000	7,139.869
2569 C-17 Aircraft	155.805	183.913	199.692	141.141	166.101	119.989	154.049	0.000	7,094.986
4886 Large Aircraft Infrared Counter Measures (LAIRCM)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	44.883

FY02 and later funds for LAIRCM were ZBTed to PE 41134F.

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

The C-17 can perform the entire spectrum of airlift missions and is specifically designed to operate effectively and efficiently in both strategic and theater environments. Airlift provides essential flexibility when responding to contingencies on short notice anywhere in the world. It is a major element of America's national security strategy and constitutes the most responsive means of meeting U.S. mobility requirements. Specific tasks associated with the airlift mission include deployment, employment (airland and airdrop), sustaining support, retrograde, and combat redeployment. The C-17 provides a vast increase in overall airlift capability necessary to replace and exceed the capabilities lost from retiring the aging C-141 fleet from the Air Force inventory. Not only can the C-17 deliver outsize cargo to austere tactical environments, but it also reduces ground time during airland operations. The C-17 will perform the airlift mission well into this century. RDT&E efforts support producibility enhancements and performance improvements.

This program is budget activity 7, Operational System Development, because the program has completed Milestone III and is continuing producibility and performance improvements to support full-rate production and increase the operational capability of the C-17 through programmed modifications.

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

	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>
(U) Previous President's Budget	153.797	184.089	200.215
(U) Current PBR/President's Budget	155.805	183.913	199.692
(U) Total Adjustments	2.008	-0.176	
(U) Congressional Program Reductions			
Congressional Rescissions		-1.576	
Congressional Increases		1.400	
Reprogrammings	2.008		
SBIR/STTR Transfer			
(U) <u>Significant Program Changes:</u>			
None			

**Exhibit R-2a, RDT&E Project Justification**

DATE  
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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	
2569 C-17 Aircraft	155.805	183.913	199.692	141.141	166.101	119.989	154.049	0.000	7,094.986	
Quantity of RDT&E Articles	0	0	0	0	0	0	0			

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

The C-17 can perform the entire spectrum of airlift missions and is specifically designed to operate effectively and efficiently in both strategic and theater environments. Airlift provides essential flexibility when responding to contingencies on short notice anywhere in the world. It is a major element of America's national security strategy and constitutes the most responsive means of meeting U.S. mobility requirements. Specific tasks associated with the airlift mission include deployment, employment (airland and airdrop), sustaining support, retrograde, and combat redeployment. The C-17 provides a vast increase in overall airlift capability necessary to replace and exceed the capabilities lost from retiring the aging C-141 fleet from the Air Force inventory. Not only can the C-17 deliver outsize cargo to austere tactical environments, but it also reduces ground time during airland operations. The C-17 will perform the airlift mission well into this century. RDT&E efforts support producibility enhancements and performance improvements.

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

	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>
(U) Performance Improvement Development & Testing	89.869	110.141	130.882
(U) Systems Engineering/Program Management	38.871	44.212	34.700
(U) Producibility Enhancement/Performance Improvement (PE/PI) Contractor Flight Test	16.715	19.560	21.110
(U) Producibility Enhancement/Performance Improvement (PE/PI) Government Flight Test	10.350	10.000	13.000
(U) Total Cost	155.805	183.913	199.692

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

	<u>FY 2003</u> <u>Actual</u>	<u>FY 2004</u> <u>Estimate</u>	<u>FY 2005</u> <u>Estimate</u>	<u>FY 2006</u> <u>Estimate</u>	<u>FY 2007</u> <u>Estimate</u>	<u>FY 2008</u> <u>Estimate</u>	<u>FY 2009</u> <u>Estimate</u>	<u>Cost to</u> <u>Complete</u>	<u>Total Cost</u>
(U) APAF, MYP, BA02, PE0401130F	3140.601	2089.574	2512.479	2584.833	2250.517	197.103	54.835	0.000	12,829.942
(U) APAF, ICS, PE0401130F	536.347	906.743	945.560	779.440	777.944	729.190	823.846	0.000	5,499.070
(U) APAF, A/C Mods, BA05, PE0401130F	90.744	48.737	89.144	314.235	369.068	564.703	695.782	0.000	2,172.413
(U) MilCon, Facilities, PE0401130F	73.133	70.047	64.800	92.400	148.800	7.400	1.400	0.000	457.980

**(U) D. Acquisition Strategy**

The C-17 Acquisition Strategy is based on five separate contracts to support the entire scope of the C-17 weapon system. These five contracts are: 1) a multi-year procurement (MYP) aircraft contract (to economically purchase the full complement of production aircraft) - (APAF); 2) a Producibility Enhancement and Performance Improvement (PE/PI) contract (to develop cost reduction changes, capability enhancements, and design fixes to service-revealed problems) - (RDT&E, APAF); 3) a Flexible Sustainment (field support) contract (to support the current and future fielded aircraft) - (APAF); 4) a MYP engine contract (for Government Furnished Equipment

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[GFE] engines) - (APAF); and 5) a set of simulator and training contracts: two aircrew training systems (ATS) contracts (one for aircrew simulators and one for training & concurrency upgrades), and a maintenance training device contract (for devices & concurrency upgrades) - (APAF).

The congressionally mandated Mobility Requirements Study (MRS), initially forwarded to Congress on 23 Jan 92 and updated in 1995 and again in 2001, validated the need for the C-17 aircraft. Two C-17 Defense Acquisition Board (DAB) decisions, contained in the 3 Nov 95 and 1 Feb 96 USD(A&T) Acquisition Decision Memoranda (ADM), directed the Air Force to proceed with a 120-aircraft production program and pursue a multi-year procurement for the last 80 aircraft. The FY96 Supplemental Appropriations Act and FY97 Defense Appropriations Act approved a 7-year MYP program. The Air Force is proceeding with an 80-aircraft MYP program (along with engines to support them) to complete a 120-aircraft total purchase at the maximum affordable rate (FY97-03 Quantity: 8-9-13-15-12-15-15), beginning with the economic order quantity (EOQ) funding in FY96. Sixty additional C-17s have been programmed at the end of the 80-aircraft MYP to replace Air Mobility Command's (AMC's) C-141 aircraft and meet requirements not included in the 120 aircraft program. The adjusted program is (FY03-07 Quantity): 15-11-14-15-13.

During FY05 the Air Force will continue evaluation of commercial C-17 Civil Reserve Air Fleet (CRAF) applications and feasibility. The Air Force will also continue evaluating the design changes required for an FAA-certifiable version of the C-17.

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**Exhibit R-3, RDT&E Project Cost Analysis**

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<b>BUDGET ACTIVITY</b> <b>07 Operational System Development</b>	<b>PE NUMBER AND TITLE</b> <b>0401130F C-17 Aircraft</b>	<b>PROJECT NUMBER AND TITLE</b> <b>2569 C-17 Aircraft</b>
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(U) <u>Cost Categories</u> (Tailor to WBS, or System/Item Requirements) (\$ in Millions)	<u>Contract Method &amp; Type</u>	<u>Performing Activity &amp; 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>												
Boeing	C,FPI/FP		5,341.904							0.000	5,341.904	
Boeing	C,CPFF		579.746	145.275	Jan-03	171.074	Jan-04	186.543	Jan-05	515.773	1,598.411	
Pratt & Whitney	C,FP		25.346							0.000	25.346	
Boeing	C,FPI		83.885							0.000	83.885	
Pratt & Whitney	FP+EPA		7.506							0.000	7.506	
None											0.000	
Subtotal Product Development			6,038.387	145.275		171.074		186.543		515.773	7,057.052	0.000
Remarks:												
(U) <u>Support</u>												
Mission Support OGC	PO		97.615							0.000	97.615	
Site Activation OGC	PO		1.539							0.000	1.539	
Miscellaneous			22.400							0.000	22.400	
None											0.000	
Subtotal Support			121.554	0.000		0.000		0.000		0.000	121.554	0.000
Remarks:												
(U) <u>Test &amp; Evaluation</u>												
Combined Test Force	PO		268.745	10.400	Jan-03	12.700	Jan-04	13.000	Jan-05	64.700	369.545	
Wright Labs/Arnold Eng Dev Center	PO		10.379	0.130	Jan-03	0.139	Jan-04	0.149	Jan-05	0.807	11.604	
Other	PO		3.030							0.000	3.030	
None											0.000	
Subtotal Test & Evaluation			282.154	10.530		12.839		13.149		65.507	384.179	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
Remarks:												

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**2569 C-17 Aircraft**

(U) Total Cost

6,442.095	155.805	183.913	199.692	581.280	7,562.7	0.000
					85	

Exhibit R-4, RDT&E Schedule Profile

DATE

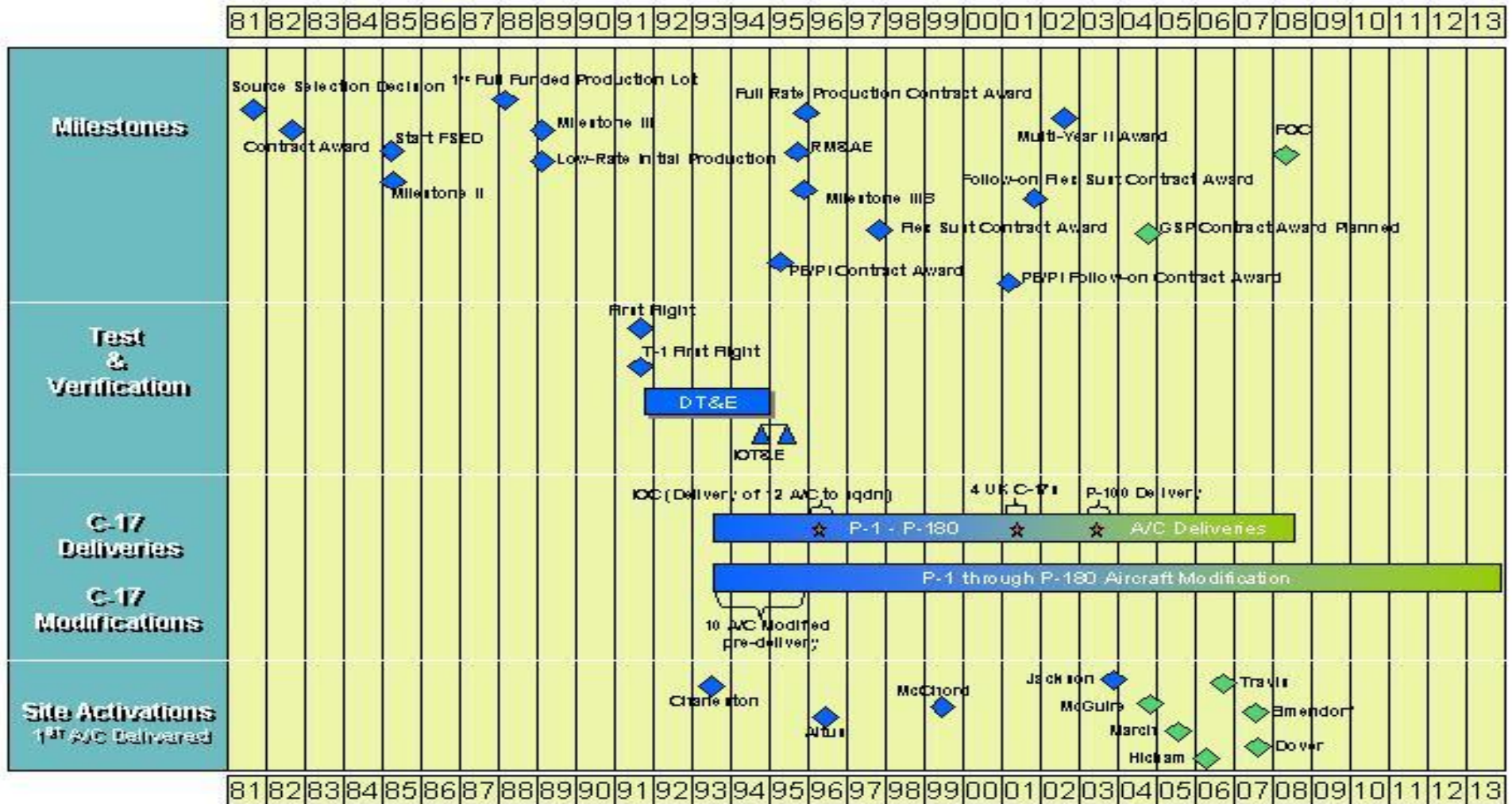
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07 Operational System Development

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# C-17 Schedule



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<b>Exhibit R-4a, RDT&amp;E Schedule Detail</b>	DATE <b>February 2004</b>
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	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>
(U) <b><u>Schedule Profile</u></b>			
(U) Incremental Funding of Ongoing Performance Improvement Projects	1-3Q	1-3Q	1-3Q
(U) T1 Integrated Drive Generator	3Q		
(U) Liquid Oxygen Bottle Crew Armor (12.7 mm)		1Q	
(U) Night Vision Goggle Lighting	2Q		
(U) Commercial Application Initiative	3Q		
(U) Army Secure Communication Requirements (SECOMP-1)		1-2Q	
(U) Precision Air Drop System (PADS) Demo	4Q		
(U) GATM/SAASM RNP Improvements		2-3Q	
(U) Formation Flying		2Q	
(U) Mission Computer /Core Integrated Processor		3Q	
(U) Flight Test Data Archive		2Q	
(U) Software Product Improvement Change Request (PICR)		2-4Q	