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

DATE: February 2003

BUDGET ACTIVITY: 07 - Operational System Development

PE NUMBER AND TITLE: 0207268F Aircraft Engine Component Improvement Program (CIP)

PROJECT: 1012

	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
1012	Aircraft Engine Component Improvement Program	163,498	182,755	180,112	168,771	190,886	170,231	172,681	174,993	Continuing	TBD
	Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0	0

(U) A. Mission Description

The Aircraft Engine Component Improvement Program (CIP) provides the only source of critical sustaining engineering support for in-service Air Force engines throughout their service life. The program's highest priority is to maintain flight safety. Engine CIP corrects service revealed deficiencies and reduces total ownership costs (RTOC). Additional goals include improved system Operational Readiness (OR) and Reliability and Maintainability (R&M). Historically, aircraft systems change missions, tactics, and environments to meet changing threats throughout their lives. Numerous new problems can develop in the engines through actual use and Engine CIP provides the only funds to develop fixes for these field problems. Engine CIP funding is driven by field events and types/maturity of engines, not by the total engine quantity. Engine CIP starts with delivery of the first production engine purchased with procurement funds, and continues over the engine's life, gradually decreasing to a minimum level (safety/depot repairs) sufficient to keep older inventory engines operational. Engine CIP addresses out-of-warranty usage and life and enables the Air Force to obtain additional warranties when manufacturers incorporate Engine CIP improvements into production engines. Since operational and safety problems arise throughout a system's service life, Engine CIP must be maintained at a level to provide the engineering support to make the changes essential for continued satisfactory system performance at affordable costs. Engine CIP ensures continued improvements in engine R&M factors, which reduce outyear support costs. Historically, R&M related Engine CIP efforts reduce outyear Operations and Maintenance (O&M) and spares costs by a ratio greater than 21 to 1. MAJCOMs assume a viable Engine CIP effort is in place when submitting their budget requests for O&M and engine spares. Without the outyear cost avoidance provided by Engine CIP, outyear support funding would have to be significantly increased.

(U) FY 2002 ($ in Thousands)

(U)	$0	Accomplishments / Planned Program
(U)	$136,977	Continuing CIP tasks (such as, but not limited to, improvement, support equipment, and repair tasks)
(U)	$22,321	Continuing engine testing (such as, but not limited to, altitude, sea level, and flight tests)
(U)	$4,200	Continuing mission support
(U)	$163,498	Total

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(U) A. Mission Description Continued

(U) FY 2003 ($ in Thousands)

(U)	$0	Accomplishments / Planned Program
(U)	$156,386	Continuing CIP tasks (such as, but not limited to, improvement, support equipment, and repair tasks)
(U)	$20,769	Continuing engine testing (such as, but not limited to, altitude, sea level, and flight tests)
(U)	$5,600	Continuing mission support
(U)	$182,755	Total

(U) FY 2004 ($ in Thousands)

(U)	$0	Accomplishments / Planned Program
(U)	$142,278	Continuing CIP tasks (such as, but not limited to, improvement, support equipment, and repair tasks)
(U)	$33,000	Continuing engine testing (such as, but not limited to, altitude, sea level, and flight tests-including F/A-22 engine maturation testing)
(U)	$4,834	Continuing mission support
(U)	$180,112	Total

(U) B. Budget Activity Justification

This program is in budget activity 7 - Operational System Development, because all efforts support fielded systems.

(U) C. Program Change Summary ($ in Thousands)

		FY 2002	FY 2003	FY 2004	Total Cost
(U)	Previous President's Budget	173,351	186,690	211,027	TBD
(U)	Appropriated Value	175,101	186,690		
(U)	Adjustments to Appropriated Value				
	a. Congressional/General Reductions	-1,750	-1,974		
	b. Small Business Innovative Research	-5,646			
	c. Omnibus or Other Above Threshold Reprogram		-1,961		
	d. Below Threshold Reprogram	-3,406			
	e. Rescissions	-801			
(U)	Adjustments to Budget Years Since FY 2003 PBR			-30,915	
(U)	Current Budget Submit/FY 2004 PBR	163,498	182,755	180,112	TBD

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07 - Operational System Development	0207268F Aircraft Engine Component Improvement Program (CIP)	1012

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

(U) Significant Program Changes:
FY 2004 decreased with paybacks in FY2005/6 to support other Air Force/DoD requirements.

(U) D. Other Program Funding Summary ($ 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
(U) AF RDT&E										
(U) Other APPN										

RELATED ACTIVITIES:
(U) - PEs # 0604268A and #0604268N, Army/Navy Aircraft Engine CIPs for prior years
(U) - PEs # 0203752A and #0205633N, Army/Navy Aircraft Engine CIPs for FY 1996 and following years

(U) E. Acquisition Strategy

Contracts within this Program Element are awarded sole source to engine manufacturers. CIP tasks are generally assigned to original engine manufacturers. Tasks are assigned based on available funding and prioritization of candidate tasks.

(U) F. Schedule Profile

	FY 2002				FY 2003				FY 2004			
	1	2	3	4	1	2	3	4	1	2	3	4

(U)

Not applicable. CIP is a continuing engineering support program that funds 600-700 separate engineering tasks per year.

RDT&E PROGRAM ELEMENT/PROJECT COST BREAKDOWN (R-3)

DATE: February 2003

BUDGET ACTIVITY: 07 - Operational System Development

PE NUMBER AND TITLE: 0207268F Aircraft Engine Component Improvement Program (CIP)

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(U) A. Project Cost Breakdown ($ in Thousands)

		FY 2002	FY 2003	FY 2004
(U)	Contracted Tasks	136,977	156,386	142,278
(U)	AFFTC Flight Tests	441	1,900	3,000
(U)	AEDC Altitude Tests	21,880	18,869	30,000
(U)	Mission Support	4,200	5,600	4,834
(U)	Total	163,498	182,755	180,112

(U) B. Budget Acquisition History and Planning Information ($ in Thousands)

(U) Performing Organizations:

Contractor or Government Performing Activity	Contract Method/Type or Funding Vehicle	Award or Obligation Date	Performing Activity EAC	Project Office EAC	Total Prior to FY 2002	Budget FY 2002	Budget FY 2003	Budget FY 2004	Budget to Complete	Total Program
Product Development Organizations										
GE-Evandale, OH	CPAF	Dec 99	N/A	N/A		62,304	58,308	55,076	Continuing	TBD
Pratt & Whitney	CPAF	Dec 99	N/A	N/A		65,143	82,778	72,152	Continuing	TBD
GE-Lynn, MA	CPFF	Dec 99	N/A	N/A		3,798	5,961	5,563	Continuing	TBD
Rolls Royce/Allison	CPFF	Jan 98	N/A	N/A		1,339	1,955	1,725	Continuing	TBD
Teledyne	CPFF	Dec 99	N/A	N/A		3,028	3,425	3,126	Continuing	TBD
Honeywell	CPFF	Jan 98	N/A	N/A		314	1,193	1,739	Continuing	TBD
Williams International	CPFF	Jan 98	N/A	N/A		875	2,628	2,695	Continuing	TBD
Hamilton/Sundstrand	CPFF	Jan 98	N/A	N/A		176	138	202	Continuing	TBD
Support and Management Organizations										
In House Support/ Misc						4,200	5,600	4,834	Continuing	TBD
Test and Evaluation Organizations										
AFFTC-Edwards AFB, CA						441	1,900	3,000	Continuing	TBD
AEDC-Arnold AFB, TN						21,880	18,869	30,000	Continuing	TBD

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Subtotals	Total Prior to FY 2002	Budget FY 2002	Budget FY 2003	Budget FY 2004	Budget to Complete	Total Program
Subtotal Product Development		136,977	156,386	142,278	TBD	TBD
Subtotal Support and Management		4,200	5,600	4,834	TBD	TBD
Subtotal Test and Evaluation		22,321	20,769	33,000	TBD	TBD
Total Project		163,498	182,755	180,112	TBD	TBD

Footnote: Total prior to FY 2002 is not reflected above because the program was funded in procurement through FY 1979 and RDT&E funding began in FY 1980.