PE NUMBER: 0708026F
PE TITLE: Productivity, Reliability, Availability, Maintainability Program

Exhibit R-2, RDT&E Budget Item Justification

DATE: February 2004

BUDGET ACTIVITY: 07 Operational System Development

PE NUMBER AND TITLE: 0708026F Productivity, Reliability, Availability, Maintainability Program

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	9.154	8.924	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2146 PRAM	9.154	8.924	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Note: Program was terminated in FY 2004 due to higher Air Force priorities.

(U) A. Mission Description and Budget Item Justification

This program emphasizes the rapid incorporation of reliability and maintainability (R&M) technology 'fixes' that will improve the operational capability of weapon systems and equipment at a significantly lower cost. Productivity, Reliability, Availability, Maintainability (PRAM) accomplishes this by utilizing existing off-the-shelf and emerging technologies and adapting them to specific Air Force and joint-Service weapon systems and processes to solve near-term deficiencies. It relies on Major Command and field support to implement the adapted-technology when the initial investment is complete. PRAM is a key tool for reducing the total ownership cost of fielded systems and supporting infrastructure. Average project length is twenty-seven months. PRAM currently provides services to all three Air Force Material Command centers as well as the Air Force Space Command Space and Missile Systems Center. Note: In FY 2003, Congress added $2.8 million for Modeling/ Re-engineering for Oklahoma City Air Logistics Center and $2.1 million for Aircraft Turbine Engine Sustainment.

This program is in Budget Activity 7, Operational System Development, because it provides support to systems in operational use.

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

		FY 2003	FY 2004	FY 2005
(U)	Previous President's Budget	9.512	0.000	0.000
(U)	Current PBR/President's Budget	9.154	8.924	0.000
(U)	Total Adjustments	-0.358	8.924	
(U)	Congressional Program Reductions			
	Congressional Rescissions		-0.076	
	Congressional Increases		9.000	
	Reprogrammings			
	SBIR/STTR Transfer	-0.358		

(U) Significant Program Changes:

Program funding was reduced due to higher priority Air Force requirements.

Exhibit R-2a, RDT&E Project Justification

DATE: **February 2004**

BUDGET ACTIVITY: **07 Operational System Development**

PE NUMBER AND TITLE: **0708026F Productivity, Reliability, Availability, Maintainability Program**

PROJECT NUMBER AND TITLE: **2146 PRAM**

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
2146 PRAM	9.154	8.924	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Quantity of RDT&E Articles	0	0	0	0	0	0	0		

Note: Program was terminated in FY 2004 due to higher Air Force priorities.

(U) A. Mission Description and Budget Item Justification

This program emphasizes the rapid incorporation of reliability and maintainability (R&M) technology 'fixes' that will improve the operational capability of weapon systems and equipment at a significantly lower cost. Productivity, Reliability, Availability, Maintainability (PRAM) accomplishes this by utilizing existing off-the-shelf and emerging technologies and adapting them to specific Air Force and joint-Service weapon systems and processes to solve near-term deficiencies. It relies on Major Command and field support to implement the adapted-technology when the initial investment is complete. PRAM is a key tool for reducing the total ownership cost of fielded systems and supporting infrastructure. Average project length is twenty-seven months. PRAM currently provides services to all three Air Force Material Command centers as well as the Air Force Space Command Space and Missile Systems Center. Note: In FY 2003, Congress added $2.8 million for Modeling/ Re-engineering for Oklahoma City Air Logistics Center and $2.1 million for Aircraft Turbine Engine Sustainment.

This program is in Budget Activity 7, Operational System Development, because it provides support to systems in operational use.

(U) B. Accomplishments/Planned Program ($ in Millions)	FY 2003	FY 2004	FY 2005
(U) MAJOR THRUST: The Productivity, Reliability, Availability and Maintainability (PRAM) program facilitates transitioning of technologies to improve reliability and maintainability of fielded systems. The program accomplishes this by utilizing existing off-the-shelf and emerging technologies and adapting them to specific systems.	4.459	0.000	0.000

(U) In FY 2003: Completed previous year subsystem Productivity, Reliability, Availability and Maintainability (PRAM) projects to reduce total ownership costs of Air Force systems such as: combining the attributes of three types of support equipment; transitioning commercial off-the-shelf equipment to the F-16 aircraft; developing a powder coating technique that is applicable to various systems; and transitioning new materials that present an improved strength-to-weight ratio resulting in greater payloads for both space and aircraft missions. Completed airframe, subsystem, life support, and space reliability and maintainability (R&M) efforts that reduce operations and support (O&S) costs by reducing the overall maintenance burden, improving capabilities, reliability, and mission readiness. Completed aero support equipment efforts to reduce Air Force O&M costs. Expanded the current base infrastructure R&M tracking method for contingency data associated with system usage/configuration, premature failures, cost, and supply. Completed development of improved efficiency air compressor. Completed the existing space and missile systems reliability efforts to reduce Air Force O&S costs within the air armaments enterprise. Completed development of a non-destructive test protocol that duplicates actual flight conditions for precision-guided munitions and cruise missiles. Transitioned technology to improve R&M of munitions handling systems. Developed and

Exhibit R-2a, RDT&E Project Justification		DATE: February 2004
BUDGET ACTIVITY: 07 Operational System Development	PE NUMBER AND TITLE: 0708026F Productivity, Reliability, Availability, Maintainability Program	PROJECT NUMBER AND TITLE: 2146 PRAM

	completed Aircraft Turbine Engine Sustainment.			
(U)	In FY 2004: Not Applicable.			
(U)	In FY 2005: Not Applicable.			
(U)				
(U)	CONGRESSIONAL ADD: Turbine Engine Sustainment Initiative.	2.683	3.470	0.000
(U)	In FY 2003: Continued to develop non-destructive inspection technology to identify embedded defects in turbine engine components.			
(U)	In FY 2004: Complete the multi-year, multi-task effort to develop non-destructive inspection tools to identify embedded defects in turbine engine components and deliver the technology for evaluation.			
(U)	In FY 2005: Not Applicable.			
(U)				
(U)	CONGRESSIONAL ADD: Modeling and Re-engineering at Oklahoma City Air Logistics Center.	2.012	0.000	0.000
(U)	In FY 2003: Completed a multi-year, multi-task effort to install lean production cells to reduce man-hours and increase production throughput on turbine engines.			
(U)	In FY 2004: Not Applicable.			
(U)	In FY 2005: Not Applicable.			
(U)				
(U)	CONGRESSIONAL ADD: Lean Depot Engine Repair (LEADER).	0.000	4.462	0.000
(U)	In FY 2003: Not Applicable.			
(U)	In FY 2004: Continue the multi-year, multi-task effort to install lean production cells to reduce man-hours and increase production throughput on turbine engines.			
(U)	In FY 2005: Not Applicable.			
(U)				
(U)	CONGRESSIONAL ADD: Inspection Technology for Turbine Engines.	0.000	0.992	0.000
(U)	In FY 2003: Not Applicable.			
(U)	In FY 2004: Complete the multi-year, multi-task effort to develop non-destructive inspection tools to identify embedded defects in turbine engine components and deliver the prototype system for evaluation.			
(U)	In FY 2005: Not Applicable.			
(U)	Total Cost	9.154	8.924	0.000

Exhibit R-2a, RDT&E Project Justification		DATE February 2004
BUDGET ACTIVITY **07 Operational System Development**	PE NUMBER AND TITLE **0708026F Productivity, Reliability, Availability, Maintainability Program**	PROJECT NUMBER AND TITLE **2146 PRAM**

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

(U) Related Activities:

(U) PE 0605011F, RDT&E for Aging Aircraft.

(U) D. Acquisition Strategy

All projects within this Program Element are awarded competitively, either by full and open competition, or by amending task order contracts with competition for subcontracts.

Exhibit R-3, RDT&E Project Cost Analysis

DATE: **February 2004**

BUDGET ACTIVITY: **07 Operational System Development**

PE NUMBER AND TITLE: **0708026F Productivity, Reliability, Availability, Maintainability Program**

PROJECT NUMBER AND TITLE: **2146 PRAM**

(U) Cost Categories (Tailor to WBS, or System/Item Requirements) ($ in Millions)	Contract Method & Type	Performing Activity & Location	Total Prior to FY 2003 Cost	FY 2003 Cost	FY 2003 Award Date	FY 2004 Cost	FY 2004 Award Date	FY 2005 Cost	FY 2005 Award Date	Cost to Complete	Total Cost	Target Value of Contract
(U) Product Development												
Numerous	Various		3.028	2.909		8.924				0.000	14.861	
General Atomics	Various		9.903	4.267						0.000	14.170	
Lockheed Martin	Various		0.510							0.000	0.510	
ARINC	T&M		1.750							0.000	1.750	
Battelle	T&M		0.000							0.000	0.000	
Lockheed Sanders	T&M		0.000							0.000	0.000	
Southwest Research	T&M		0.000							0.000	0.000	
CACI	T&M		0.000	0.100						0.000	0.100	
NCI Information Systems	T&M		0.000							0.000	0.000	
General Dynamics	TBD		0.000	0.600						0.000	0.600	
None											0.000	
Subtotal Product Development			15.191	7.876		8.924		0.000		0.000	31.991	0.000
Remarks:												
(U) Support												
UDRI	TDB		0.000								0.000	
In-house support											0.000	
None											0.000	
Subtotal Support			0.000	0.000		0.000		0.000		0.000	0.000	0.000
Remarks:												
(U) Test & Evaluation												
None											0.000	
Subtotal Test & Evaluation			0.000	0.000		0.000		0.000		0.000	0.000	0.000
Remarks:												
(U) Management												
				1.278							1.278	
Subtotal Management			0.000	1.278		0.000		0.000		0.000	1.278	0.000
Remarks:												
(U) Total Cost			15.191	9.154		8.924		0.000		0.000	33.269	0.000

Exhibit R-4, RDT&E Schedule Profile		DATE: February 2004
BUDGET ACTIVITY: 07 Operational System Development	PE NUMBER AND TITLE: 0708026F Productivity, Reliability, Availability, Maintainability Program	PROJECT NUMBER AND TITLE: 2146 PRAM

PRAM Schedule

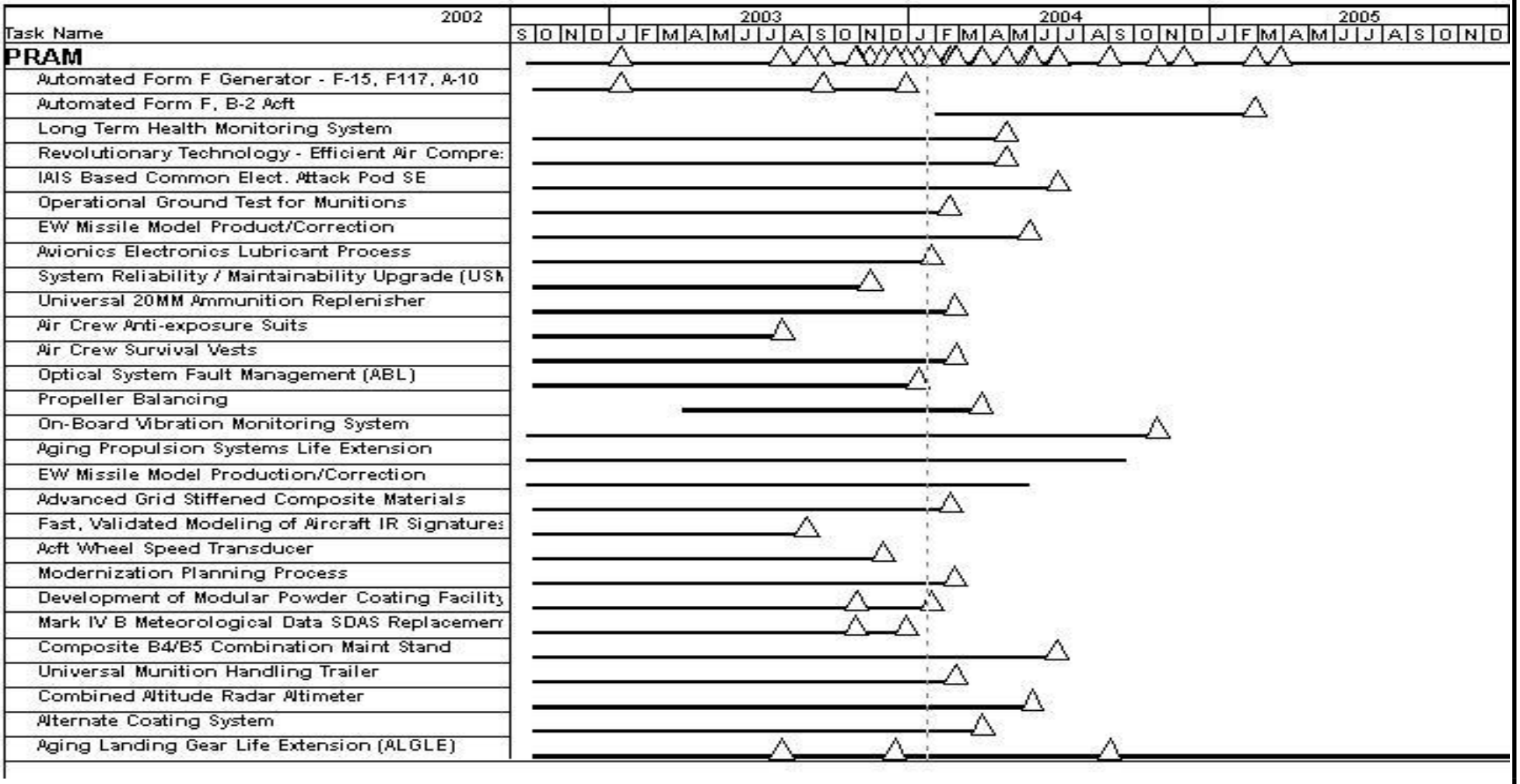

Exhibit R-4a, RDT&E Schedule Detail		DATE February 2004
BUDGET ACTIVITY **07 Operational System Development**	PE NUMBER AND TITLE **0708026F Productivity, Reliability, Availability, Maintainability Program**	PROJECT NUMBER AND TITLE **2146 PRAM**

	Schedule Profile	FY 2003	FY 2004	FY 2005
(U)	Blade Tip Repair at Oklahoma City Air Logistics Center: (Congressional Add)	4Q		
(U)	Modeling/Re-engineering at Oklahoma City Air Logistics Center		3Q	3Q
(U)	Aircraft Turbine Engine Sustainment (Congressional Add)	3Q	3Q	3Q
(U)	Inspection Technology for Turbine Engines (Congressional Add)	2Q		
(U)	Portable Power Coating Process Warner Robbins Air Logistics Center: Develop a portable application for applying powder coating to landing gear components	2Q	2Q	
(U)	Powder Coating Process for Damages Warner Robbins Air Logistics Center: Develop and evaluate processes suitable for the repair of damaged powder coating	3Q		
(U)	Cost of Corrosion	3Q		