PE NUMBER: 0605101F PE TITLE: RAND Project Air Force

Exhibit R-2, RDT&E Budget Item Justification									DATE	DATE February 2005		
			_	BER AND TITLE 1F RAND Pr		rce						
	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	31.025	22.802	28.354	29.703	30.929	32.165	33.548	34.623	Continuing	TBD	
1110	Project Air Force	31.025	22.802	28.354	29.703	30.929	32.165	33.548	34.623	Continuing	TBD	

(U) A. Mission Description and Budget Item Justification

- (U) This program provides for continuing analytical research across a broad spectrum of aerospace issues and concerns. The Project AIR FORCE (PAF) research agenda is focused primarily on mid- to long-term problems; in addition, PAF provides quick response assistance for senior Air Force officials on high priority, near term issues. Within these areas, PAF addresses difficult and complex, far-reaching and inter-related questions linked to future strategies, approaches and policies, in order to enhance Air Force senior leadership's deliberations and decisionmaking on major issues. The Air Force Steering Group, chaired by the Vice Chief of Staff, reviews, monitors, and approves PAF annual research efforts. Each project is initiated, processed, and approved IAW PAF Sponsoring Agreement which requires General Officer (or SES equivalent) sponsorship and involvement on a continuing basis.
- (U) PAF is organized in four primary research program areas: strategy and doctrine; aerospace force development; manpower, personnel and training; and resource management. Integrative research projects are also conducted at the division level with direct support provided through the most applicable program. Research programs address organizational crosscutting issues as defined by specific research themes approved by the Air Force Steering Group. These research themes encompass a wide spectrum of topics including external challenges to national security; terrorism and homeland defense; joint and coalition operations; integrated roadmap for ISR capabilities; enhancing, tailoring and reducing infrastructure to meet new force requirements; potential changes to the Active/Reserve/National Guard/Civilian/Contractor manpower mix; and improved weapon system costing.
- (U) The FY04 research program investigated a range of transformation issues with both a long-term perspective and a focus on immediate concerns such as the Global War on Terrorism (GWOT). Strategy research investigated regional stability and threats, joint expeditionary operations, and counter-terrorism. Force development analysis emphasized innovative and transformational operational concepts, and the force structures and capabilities to realize these. Manpower studies included defining the personnel mix and their appropriate training, development, and utilization in order to effectively meet future requirements and operations tempo; and analysis of senior leader development and utilization. Resources research focused on maturing agile combat support and force sustainment concepts to efficiently support global joint operations, and assessed the cost and viability of current and possible future force elements. Integrative research continued to examine the survivability of aerospace capabilities while operating in severe threat environments and analyzed options for recapitalizing the aging aerial refueling aircraft fleet.
- (U) The FY05 research program has been developed to emphasize strategic and transformational options for the future force structure and capabilities. Topics range from the GWOT and stability operations, to developing our total force, to force structure recapitalization. Strategy research will investigate regional stability and threats, managing the current security environment, and counter-terrorism. Aerospace force development analysis will emphasize innovative and transformational operational concepts, and the force structures and capabilities to best execute joint operations; and the implications of reliance on space-based capabilities. Manpower studies will include developing and managing elements of the force from enlisted personnel through executives, assessing training approaches and their impacts on readiness, and defining future needs for pilot training aircraft. Resources research will include programming methods focused on resulting capabilities, efficient combat support, supportability of unmanned aerial vehicles and options for providing this support; maintenance of low-observable aircraft; contracting approaches to

R-1 Shopping List - Item No. 104-2 of 104-7

Exhibit R-2 (PE 0605101F)

Exhibit R-2, RDT&E Budget Item Ju	DATE February 2005	
BUDGET ACTIVITY	PE NUMBER AND TITLE	
06 RDT&E Management Support	0605101F RAND Project Air Force	

support contingency operations; weapon system costing; and the transformation of the Air National Guard combat support functions. Integrative research will assess the survivability of aerospace capabilities that are required to persist in denied airspace; examine issues related to force structure aging and eventual recapitalization; and complete the requested aerial refueling aircraft analysis of alternatives. These studies will continue to take into consideration the GWOT, including engagements in Afghanistan, Iraq, and elsewhere.

- (U) The FY06 research program will continue to build upon research foundations, examining the evolving security environment, emerging threats, national and military strategy, transformation approaches including investment strategies to provide capabilities within changing Defense budgets, operational concepts to meet evolving and increasingly joint missions, exploiting advanced technologies, increasing the effectiveness and efficiency of combat support, and developing the total force (Active/Reserve/National Guard/Civilian/Contractor). These efforts will continue to inform and support the senior Air Force leadership regarding personnel management and training; improving logistical efficiencies and force sustainment; ongoing conflicts and joint operations; force structure capabilities, limitations, and operational concepts; and making force structure tradeoffs within resource constraints to meet future national security and Air Force needs.
- (U) Looking into the future, the FY07 research program will build upon FY06 and earlier work to continue to help the Air Force to rapidly and appropriately adapt to the changing world environment and emerging threats; continue to modernize and employ its force structure to provide capabilities within changing DoD budgets; assess lessons learned from recent and ongoing conflicts; develop and utilize its total force; and enhance the support of our aerospace forces, ranging from sustainment of the force structure to agile combat support.
- (U) PAF research spans functional and organizational boundaries and is managed in a manner to facilitate independence and freedom from organizational bias thereby providing perspectives and insights to senior Air Force leaders free from parochial influences not necessarily in the best interest of the Air Force at large.
- (U) Benefits of independent non-Department of Defense analysis of complex present day and emerging issues are shared beyond the immediacy of the Air Force. PAF study results are given wide dissemination within the DOD on a routine basis and are deposited with the Defense Technical Information Center available to a broad range of qualified government and commercial-sector individuals and activities.
- (U) This program is in budget activity 6- Management and Support, because it funds RAND Project AIR FORCE (PAF), the only Air Force Federally Funded Research and Development Center for studies and analyses.

R-1 Shopping List - Item No. 104-3 of 104-7

Exhibit R-2, RDT&E Budge	DATE February 2005			
BUDGET ACTIVITY 06 RDT&E Management Support	PE NUMBER AND TITLE 0605101F RAND Project A	1 001 00.	<u>, 2000 </u>	
U) B. Program Change Summary (\$ in Millions)				
	<u>FY 2004</u>	FY 2005	FY 2006	FY 2007
U) Previous President's Budget	24.586	24.970	26.101	26.650
U) Current PBR/President's Budget	31.025	22.802	28.354	29.703
U) Total Adjustments	6.439	-2.168		
U) Congressional Program Reductions	-0.209	-2.168		
Congressional Rescissions				
Congressional Increases				
Reprogrammings	6.648			
SBIR/STTR Transfer				
U) Significant Program Changes:				
N/A				
D 4 Cha	opping List - Item No. 104-4 of 104-7		Evhibit D	2 (PE 0605101F

Exhibit R-2a, RDT&E Project Justification								DATE	February 2	2005	
BUDGET ACTIVITY 06 RDT&E Management Support						BER AND TITLE 1 1F RAND P E	≣ roject Air Fo			NUMBER AND TITLE oject Air Force	
	Cost (\$ in Millions)	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	Cost to	Total
		Actual	Estimate	Estimate	Estimate	Estimate	Estimate	Estimate	Estimate	Complete	
1110	Project Air Force	31.025	22.802	28.354	29.703	30.929	32.165	33.548	34.623	Continuing	TBD
	Quantity of RDT&E Articles	0	0	0	0	0	0	(0		

(U) A. Mission Description and Budget Item Justification

- (U) This program provides for continuing analytical research across a broad spectrum of aerospace issues and concerns. The Project AIR FORCE (PAF) research agenda is focused primarily on mid- to long-term problems; in addition, PAF provides quick response assistance for senior Air Force officials on high priority, near term issues. Within these areas, PAF addresses difficult and complex, far-reaching and inter-related questions linked to future strategies, approaches and policies, in order to enhance Air Force senior leadership's deliberations and decisionmaking on major issues. The Air Force Steering Group, chaired by the Vice Chief of Staff, reviews, monitors, and approves PAF annual research efforts. Each project is initiated, processed, and approved IAW PAF Sponsoring Agreement which requires General Officer (or SES equivalent) sponsorship and involvement on a continuing basis.
- (U) PAF is organized in four primary research program areas: strategy and doctrine; aerospace force development; manpower, personnel and training; and resource management. Integrative research projects are also conducted at the division level with direct support provided through the most applicable program. Research programs address organizational crosscutting issues as defined by specific research themes approved by the Air Force Steering Group. These research themes encompass a wide spectrum of topics including external challenges to national security; terrorism and homeland defense; joint and coalition operations; integrated roadmap for ISR capabilities; enhancing, tailoring and reducing infrastructure to meet new force requirements; potential changes to the Active/Reserve/National Guard/Civilian/Contractor manpower mix; and improved weapon system costing.
- (U) The FY04 research program investigated a range of transformation issues with both a long-term perspective and a focus on immediate concerns such as the Global War on Terrorism (GWOT). Strategy research investigated regional stability and threats, joint expeditionary operations, and counter-terrorism. Force development analysis emphasized innovative and transformational operational concepts, and the force structures and capabilities to realize these. Manpower studies included defining the personnel mix and their appropriate training, development, and utilization in order to effectively meet future requirements and operations tempo; and analysis of senior leader development and utilization. Resources research focused on maturing agile combat support and force sustainment concepts to efficiently support global joint operations, and assessed the cost and viability of current and possible future force elements. Integrative research continued to examine the survivability of aerospace capabilities while operating in severe threat environments and analyzed options for recapitalizing the aging aerial refueling aircraft fleet.
- (U) The FY05 research program has been developed to emphasize strategic and transformational options for the future force structure and capabilities. Topics range from the GWOT and stability operations, to developing our total force, to force structure recapitalization. Strategy research will investigate regional stability and threats, managing the current security environment, and counter-terrorism. Aerospace force development analysis will emphasize innovative and transformational operational concepts, and the force structures and capabilities to best execute joint operations; and the implications of reliance on space-based capabilities. Manpower studies will include developing and managing elements of the force from enlisted personnel through executives, assessing training approaches and their impacts on readiness, and defining future needs for pilot training aircraft. Resources research will include programming methods focused on resulting capabilities, efficient combat support, supportability of unmanned aerial vehicles and options for providing this support; maintenance of low-observable aircraft; contracting approaches to support contingency operations; weapon system costing; and the transformation of the Air National Guard combat support functions. Integrative research will assess

Project 1110

Exhibit R-2a, RDT&E Project Jus	February 2005		
BUDGET ACTIVITY	PE NUMBER AND TITLE	PROJEC	T NUMBER AND TITLE
06 RDT&E Management Support	0605101F RAND Project Air Force	RAND Project Air Force 11110 P	

the survivability of aerospace capabilities that are required to persist in denied airspace; examine issues related to force structure aging and eventual recapitalization; and complete the requested aerial refueling aircraft analysis of alternatives. These studies will continue to take into consideration the GWOT, including engagements in Afghanistan, Iraq, and elsewhere.

- (U) The FY06 research program will continue to build upon research foundations, examining the evolving security environment, emerging threats, national and military strategy, transformation approaches including investment strategies to provide capabilities within changing Defense budgets, operational concepts to meet evolving and increasingly joint missions, exploiting advanced technologies, increasing the effectiveness and efficiency of combat support, and developing the total force (Active/Reserve/National Guard/Civilian/Contractor). These efforts will continue to inform and support the senior Air Force leadership regarding personnel management and training; improving logistical efficiencies and force sustainment; ongoing conflicts and joint operations; force structure capabilities, limitations, and operational concepts; and making force structure tradeoffs within resource constraints to meet future national security and Air Force needs.
- (U) Looking into the future, the FY07 research program will build upon FY06 and earlier work to continue to help the Air Force to rapidly and appropriately adapt to the changing world environment and emerging threats; continue to modernize and employ its force structure to provide capabilities within changing DoD budgets; assess lessons learned from recent and ongoing conflicts; develop and utilize its total force; and enhance the support of our aerospace forces, ranging from sustainment of the force structure to agile combat support.
- (U) PAF research spans functional and organizational boundaries and is managed in a manner to facilitate independence and freedom from organizational bias thereby providing perspectives and insights to senior Air Force leaders free from parochial influences not necessarily in the best interest of the Air Force at large.
- (U) Benefits of independent non-Department of Defense analysis of complex present day and emerging issues are shared beyond the immediacy of the Air Force. PAF study results are given wide dissemination within the DOD on a routine basis and are deposited with the Defense Technical Information Center available to a broad range of qualified government and commercial-sector individuals and activities.
- (U) This program is in budget activity 6- Management and Support, because it funds RAND Project AIR FORCE (PAF), the only Air Force Federally Funded Research and Development Center for studies and analyses.

(U)	B. Accomplishments/Planned Program (\$ in Millions)	<u>FY 2004</u>	FY 2005	FY 2006	FY 2007
(U)	Accomplishments/Planned Program				
(U)) Strategy and Doctrine	6.119	5.903	7.231	7.474
(U)	Aerospace Force Development	6.119	5.762	6.590	6.927
(U)	Manpower, Personnel, and Training	5.974	5.762	6.530	6.877
(U)	Resource Management	8.439	4.122	5.805	6.129
(U)) Integrative Research/Direct Support	4.374	1.253	2.198	2.296
(U)) Total Cost	31.025	22.802	28.354	29.703

Project 1110 R-1 Shopping List - Item No. 104-6 of 104-7

Exhibit R-2a, RDT&E Project Justification BUDGET ACTIVITY O6 RDT&E Management Support PE NUMBER AND TITLE O605101F RAND Project Air Force DATE February 2005 PROJECT NUMBER AND TITLE 1110 Project Air Force

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

Cost to Total Cost FY 2004 FY 2005 FY 2006 FY 2007 FY 2008 FY 2009 FY 2010 FY 2011 Actual **Estimate Estimate Estimate Estimate Estimate Estimate Estimate**

(U) N/A

Non-PE O&M funding no longer reported to maintain consistency with previous exhibits prior to PB 04.

(U) D. Acquisition Strategy

A comprehensive review of RAND/Project AIR FORCE was completed in Sep 00 and led to a 5-year (FY01-FY05) Cost Plus / Fixed Fee contract, awarded on 01 Oct 00. A subsequent comprehensive review will be conducted in FY05. Pending a favorable decision to continue the AF's efforts with RAND Project AIR FORCE, a follow-on (FY06-FY10) Cost Plus / Fixed Fee contract will be awarded in Oct 05.

Project 1110

R-1 Shopping List - Item No. 104-7 of 104-7

Exhibit R-2a (PE 0605101F)