PE NUMBER: 0604015F
PE TITLE: NEXT GENERATION BOMBER

Exhibit R-2, RDT&E Budget Item Justification

DATE: February 2005

BUDGET ACTIVITY: 04 Advanced Component Development and Prototypes (ACD&P)

PE NUMBER AND TITLE: 0604015F NEXT GENERATION BOMBER

	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	44.156	29.735	25.135	69.799	182.768	241.170	326.941	440.102	Continuing	TBD
3308	Next Generation Bomber	44.156	29.735	25.135	69.799	182.768	241.170	326.941	440.102	Continuing	TBD

(U) A. Mission Description and Budget Item Justification

This program develops and demonstrates a next generation Long Range Strike capability in support of Air Force Global Strike and Global Persistent Attack Concept of Operations. This program will provide capability improvements in the areas of strike responsiveness, persistence, survivability, lethality, connectivity, and affordability. A wide variety of concept options are being considered for a Long Range Strike air platform. Funding supports Capability Needs Assessment, Analysis of Alternatives, operational and system architectures, maturation and risk reduction of advanced Long Range Strike technologies, and integrated system concept development and demonstration. Note: In FY 2005, Congress added $30M for Congressional Add Bomber Development. This program is categorized as Budget Activity 4, Advanced Component Development and Prototypes, since advanced technologies will be explored and integrated for demonstration in a realistic operating environment applicable to Long Range Strike.

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

		FY 2004	FY 2005	FY 2006	FY 2007
(U)	Previous President's Budget	44.618	0.000	0.000	0.000
(U)	Current PBR/President's Budget	44.156	29.735	25.135	69.799
(U)	Total Adjustments	-0.462	29.735		
(U)	Congressional Program Reductions				
	Congressional Rescissions		-0.265		
	Congressional Increases		30.000		
	Reprogrammings				
	SBIR/STTR Transfer	-0.462			

(U) Significant Program Changes:

Congressionally directed program in FY 2004 and FY 2005. In FY 2006 and out, the Air Force added funding to continue next generation Long Range Strike efforts in support of Air Force Concept of Operations.

C. Performance Metrics

Under Development.

Exhibit R-2a, RDT&E Project Justification

DATE: February 2005

BUDGET ACTIVITY: 04 Advanced Component Development and Prototypes (ACD&P)

PE NUMBER AND TITLE: 0604015F NEXT GENERATION BOMBER

PROJECT NUMBER AND TITLE: 3308 Next Generation Bomber

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
3308 Next Generation Bomber	44.156	29.735	25.135	69.799	182.768	241.170	326.941	440.102	Continuing	TBD
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0		

(U) A. Mission Description and Budget Item Justification

This program develops and demonstrates a next generation Long Range Strike capability in support of Air Force Global Strike and Global Persistent Attack Concept of Operations. This program will provide capability improvements in the areas of strike responsiveness, persistence, survivability, lethality, connectivity, and affordability. A wide variety of concept options are being considered for a Long Range Strike air platform. Funding supports Capability Needs Assessment, Analysis of Alternatives, operational and system architectures, maturation and risk reduction of advanced Long Range Strike technologies, and integrated system concept development and demonstration. Note: In FY 2005, Congress added $30M for Congressional Add Bomber Development. This program is categorized as Budget Activity 4, Advanced Component Development and Prototypes, since advanced technologies will be explored and integrated for demonstration in a realistic operating environment applicable to Long Range Strike.

(U) B. Accomplishments/Planned Program ($ in Millions)	FY 2004	FY 2005	FY 2006	FY 2007
(U) MAJOR THRUST: Develop and refine Long Range Strike requirements based on the Air Force Global Strike and Global Persistent Attack Concept of Operations.	0.000	0.000	25.135	69.799

(U) In FY 2004: Not Applicable.

(U) In FY 2005: Not Applicable.

(U) In FY 2006: Refine system concepts and operational/system architectures, and prepare Technology Development Strategy. Conduct Analysis of Alternatives to identify preferred Long Range Strike option. Develop radio frequency/electro-optical/infrared sensor technology for rapid and accurate target detection and identification capability. Develop data fusion algorithms and crew interface techniques for multi-platform sensor cueing/management and net-centric operations. Develop blended wing aero-control and structural load databases to characterize aero-propulsive efficiency. Determine large-scale composite airframe manufacturing approaches. Demonstrate acoustic suppression and enhanced weapon separation technology. Develop lightweight thermal structures components for air platform concepts. Conduct small-scale wind tunnel experiments of tailless aero-configurations. Validate performance of engine inlet and nozzle flowpath components for variable cycle propulsion. Demonstrate high temperature engine core components.

(U) In FY 2007: Continue refinement of system concepts and operational/system architectures, and continue preparation of Technology Development Strategy. Continue Analysis of Alternatives to identify preferred Long Range Strike option. Continue development of radio frequency/electro-optical/infrared sensor technology for rapid and accurate target detection and identification capability. Continue development of data fusion algorithms and crew interface techniques for multi-platform sensor

Exhibit R-2a, RDT&E Project Justification		DATE: February 2005
BUDGET ACTIVITY: 04 Advanced Component Development and Prototypes (ACD&P)	PE NUMBER AND TITLE: 0604015F NEXT GENERATION BOMBER	PROJECT NUMBER AND TITLE: 3308 Next Generation Bomber

	cueing/management and net-centric operations. Complete analysis of blended wing aero-control and structural load databases to characterize aero-propulsive efficiency. Complete demonstration of acoustic suppression and enhanced weapon separation technology. Continue development of lightweight thermal structures. Conduct large-scale high fidelity wind tunnel experiments of tailless aero-configurations. Continue to validate performance of engine inlet and nozzle flowpath components and vehicle installation for variable cycle propulsion. Continue demonstration of high temperature engine core components.				
(U)					
(U)	CONGRESSIONAL ADD: Next Generation Bomber	44.156	0.000	0.000	0.000
(U)	In FY 2004: Prepared Analysis of Alternatives plan and performed Capability Needs Assessment. Performed manufacturing/performance feasibility testing of large-scale composites applicable to common airframes. Identified materials for performance at high temperatures associated with high-speed platforms. Designed engine inlet and nozzle flowpath components for high-speed variable cycle propulsion. Designed high temperature engine core components required for high-speed stealth. Developed fuel-cooled turbine concept for improved range capability of stand off weapons.				
(U)	In FY 2005: Not Applicable.				
(U)	In FY 2006: Not Applicable.				
(U)	In FY 2007: Not Applicable.				
(U)					
(U)	CONGRESSIONAL ADD: Bomber Development.	0.000	29.735	0.000	0.000
(U)	In FY 2004: Not Applicable.				
(U)	In FY 2005: Refine system concepts and operational/system architectures. Perform Joint Capabilities Analysis. Formulate integrated concept for auto-target recognition, data fusion, and crew interface technologies. Test materials and structures for performance at high temperatures associated with high-speed platforms. Develop engine inlet and nozzle flowpath components for high-speed variable cycle propulsion. Develop fuel-cooled turbine components for improved range.				
(U)	In FY 2006: Not Applicable.				
(U)	In FY 2007: Not Applicable.				
(U)	Total Cost	44.156	29.735	25.135	69.799

Exhibit R-2a, RDT&E Project Justification		DATE February 2005
BUDGET ACTIVITY 04 Advanced Component Development and Prototypes (ACD&P)	PE NUMBER AND TITLE 0604015F NEXT GENERATION BOMBER	PROJECT NUMBER AND TITLE 3308 Next Generation Bomber

(U) C. Other Program Funding Summary ($ 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 Cost
(U) PE 63211F, Aerospace Technology Dev/Demo.										

(U) D. Acquisition Strategy

Acquisition strategy will be approved at the Concept Decision.

Exhibit R-3, RDT&E Project Cost Analysis

DATE: **February 2005**

BUDGET ACTIVITY: **04 Advanced Component Development and Prototypes (ACD&P)**

PE NUMBER AND TITLE: **0604015F NEXT GENERATION BOMBER**

PROJECT NUMBER AND TITLE: **3308 Next Generation Bomber**

(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) Long Range Strike														
Concept Exploration and Refinement	TBD	TBD	0.000	44.156		29.735		25.135		69.799		Continuing	TBD	
Subtotal Long Range Strike			0.000	44.156		29.735		25.135		69.799		Continuing	TBD	0.000
Remarks:														
(U) Total Cost			0.000	44.156		29.735		25.135		69.799		Continuing	TBD	0.000

Exhibit R-4, RDT&E Schedule Profile		DATE: February 2005
BUDGET ACTIVITY: 04 Advanced Component Development and Prototypes (ACD&P)	PE NUMBER AND TITLE: 0604015F NEXT GENERATION BOMBER	PROJECT NUMBER AND TITLE: 3308 Next Generation Bomber

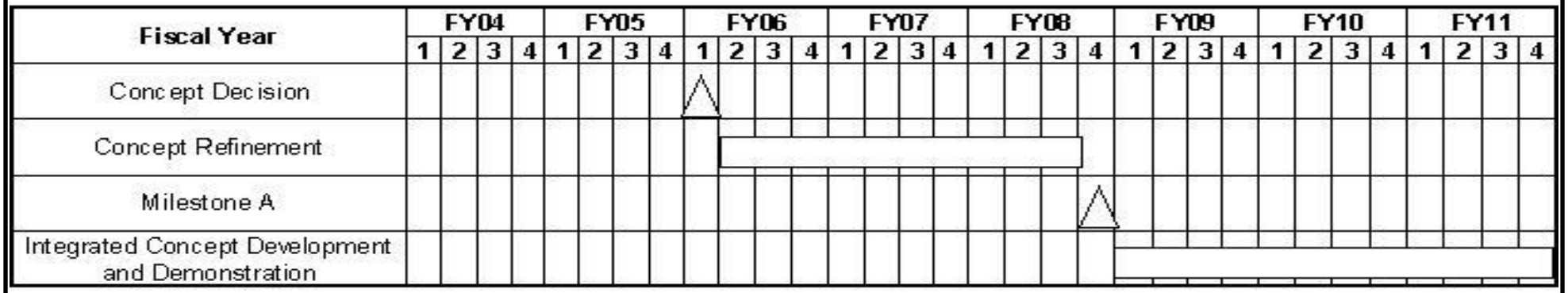

Exhibit R-4a, RDT&E Schedule Detail		DATE February 2005
BUDGET ACTIVITY **04 Advanced Component Development and Prototypes (ACD&P)**	PE NUMBER AND TITLE **0604015F NEXT GENERATION BOMBER**	PROJECT NUMBER AND TITLE **3308 Next Generation Bomber**

(U) Schedule Profile	FY 2004	FY 2005	FY 2006	FY 2007
(U) Concept Decision			1Q	