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PE NUMBER: 0604015F

PE TITLE: Next Generation Long Range Strike (NGLRS)

Exhibit R-2, RDT&E Budget Item Justification

DATE

February 2006

BUDGET ACTIVITY

04 Advanced Component Development and Prototypes (ACD&P)

PE NUMBER AND TITLE

0604015F Next Generation Long Range Strike (NGLRS)

Cost (\$ in Millions)	FY 2005 Actual	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	28.877	24.777	25.598	64.514	103.878	305.670	1,103.234	Continuing	TBD
3308 Next Generation Bomber	28.877	24.777	25.598	64.514	103.878	305.670	1,103.234	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. Program efforts support the Air Force three-phase long range strike strategy. 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 architecture development, maturation and risk reduction of advanced Long Range Strike related technologies, and integrated system concept development and demonstration. Note: In FY 2005, Congress added \$30M for 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)**

	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>
(U) Previous President's Budget	29.735	25.135	69.799
(U) Current PBR/President's Budget	28.877	24.777	25.598
(U) Total Adjustments	-0.858	-0.358	
(U) Congressional Program Reductions			
Congressional Rescissions	-0.023	-0.358	
Congressional Increases			
Reprogrammings	-0.835		
SBIR/STTR Transfer			

(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. If required, funding will be adjusted after the Analysis of Alternatives is complete and the Department determines which alternatives it will pursue.

C. Performance Metrics
Under Development.

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PROJECT NUMBER AND TITLE

3308 Next Generation Bomber

Cost (\$ in Millions)	FY 2005 Actual	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	28.877	24.777	25.598	64.514	103.878	305.670	1,103.234	Continuing	TBD
Quantity of RDT&E Articles	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. Program efforts support the Air Force three-phase long range strike strategy. 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 architecture development, maturation and risk reduction of advanced Long Range Strike related technologies, and integrated system concept development and demonstration. Note: In FY 2005, Congress added \$30M for 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)**

	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>
(U) MAJOR THRUST: Develop and refine Long Range Strike requirements based on the Air Force Global Strike and Global Persistent Attack Concept of Operations.	28.877	24.777	25.598
(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: 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 designs and operational/system architectures. Continue Analysis of Alternative to identify preferred Long Range Strike option. Continue preparation of the Technology			

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3308 Next Generation Bomber

(U) **B. Accomplishments/Planned Program (\$ in Millions)**FY 2005FY 2006FY 2007

Development Strategy (TDS). Initiate projects to mature key technologies including mitigating risk by developing and demonstrating key concept attributes of the preferred option. Begin initial development of acquisition documentation including, as a minimum: Life Cycle Management Plan, Systems Engineering Plan, Modeling and Simulation Support Plan, Capability Development Document and Test and Evaluation Strategy. Initiate execution of the Modeling and Simulation Support Strategy to ensure robust analytic support across the concept life cycle. Continue development of radio frequency/electro-optical/infrared sensor technology for radio and accurate target detection and identification capability. Develop high temperature and variable cycle engine core components, sensor/aperture integration technology, and advanced weapon integration technology

(U) Total Cost

28.877

24.777

25.598

(U) **C. Other Program Funding Summary (\$ in Millions)**FY 2005FY 2006FY 2007FY 2008FY 2009FY 2010FY 2011Cost toTotal CostActualEstimateEstimateEstimateEstimateEstimateEstimateComplete

(U) N/A

(U) **D. Acquisition Strategy**

Acquisition strategy will be approved at Milestone A entry into technology development.

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Exhibit R-3, RDT&E Project Cost Analysis

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(U) <u>Cost Categories</u> (Tailor to WBS, or System/Item Requirements) (\$ in Millions)	<u>Contract</u> <u>Method &</u> <u>Type</u>	<u>Performing</u> <u>Activity &</u> <u>Location</u>	<u>Total</u> <u>Prior to FY</u> <u>2005</u> <u>Cost</u>	<u>FY 2005</u> <u>Cost</u>	<u>FY 2005</u> <u>Award</u> <u>Date</u>	<u>FY 2006</u> <u>Cost</u>	<u>FY 2006</u> <u>Award</u> <u>Date</u>	<u>FY 2007</u> <u>Cost</u>	<u>FY 2007</u> <u>Award</u> <u>Date</u>	<u>Cost to</u> <u>Complete</u>	<u>Total Cost</u>	<u>Target Value</u> <u>of Contract</u>
(U) <u>Long Range Strike</u>												
Concept Exploration and Refinement	TBD	TBD		28.877		24.777		25.598		Continuing	TBD	
Subtotal Long Range Strike			0.000	28.877		24.777		25.598		Continuing	TBD	0.000
Remarks:												
(U) Total Cost			0.000	28.877		24.777		25.598		Continuing	TBD	0.000

Exhibit R-4, RDT&E Schedule Profile

DATE

February 2006

BUDGET ACTIVITY

04 Advanced Component Development and Prototypes (ACD&P)

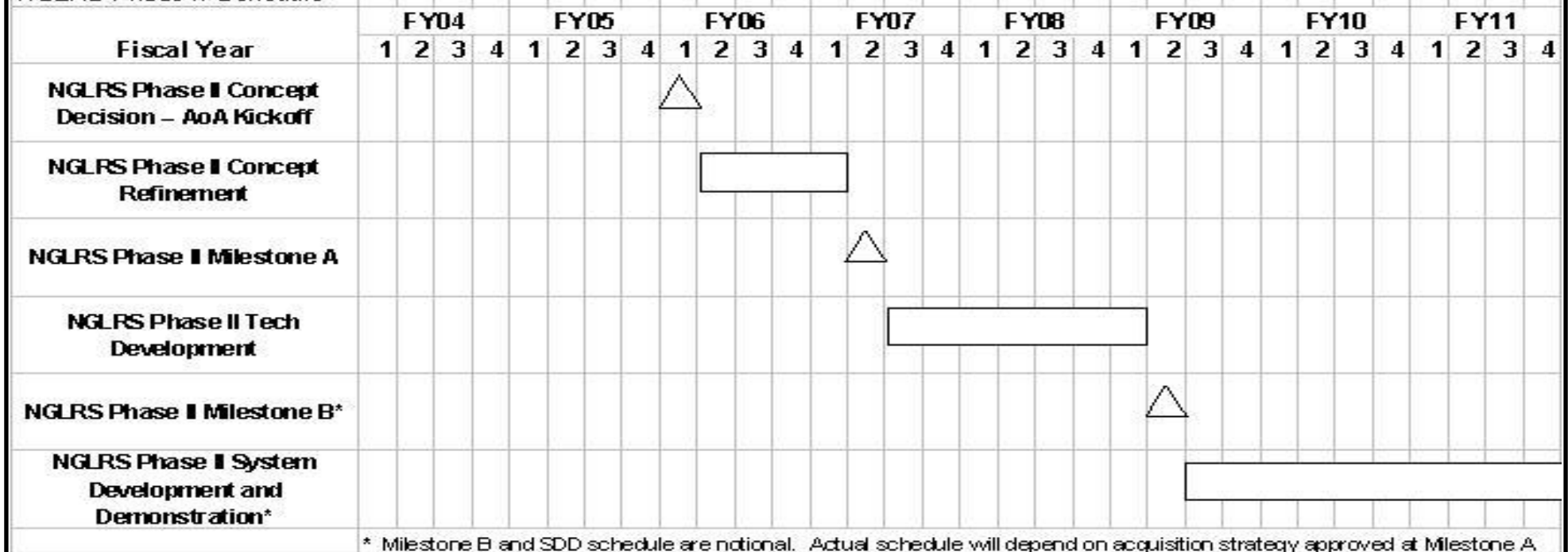
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NGLRS Phase II Schedule



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Exhibit R-4a, RDT&E Schedule Detail

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(U) Schedule ProfileFY 2005FY 2006FY 2007

(U) Enter Concept Refinement Phase -- AoA Start

1Q

(U) AoA Completion

2Q

(U) Enter Technology Development Phase - Milestone A

2Q