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Exhibit R-2, RDT&E Budget Item Justification: PB 2013 Air Force									DATE: February 2012		
APPROPRIATION/BUDGET ACTIVITY				R-1 ITEM NOMENCLATURE							
3600: Research, Development, Test & Evaluation, Air Force				PE 0605213F: F-22 INCREMENT 3.2B							
BA 5: Development & Demonstration (SDD)											
COST (\$ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
Total Program Element	-	-	140.100	-	140.100	174.700	137.700	86.300	34.600	Continuing	Continuing
654785: F-22 INCREMENT 3.2B	-	-	140.100	-	140.100	174.700	137.700	86.300	34.600	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		

Note

In FY13, a separate Program Element has been created for Increment 3.2B in support of milestone B preparations. All Increment 3.2B efforts and funding prior to FY13 continue to be shown in this F-22 baseline documentation.

The Cost to Complete and Total Cost for MDAP projects in this program element are documented in the R3. The Cost to Complete and Total Cost on the R2 are entered as "Continuing" and not reflective of the total cost for MDAP projects since the R2 does not account for prior years funding.

A. Mission Description and Budget Item Justification

Increment 3.2B will integrate the newest air-to-air intercept missiles (i.e., AIM-9X and AIM-120D), further improve the Electronic Protection (EP) capability over Increment 3.2A, and enhance the F-22's geolocation capability from the Increment 3.1 baseline with the addition of the Geolocation 2 candidate. Increment 3.2B will include the Enhanced Stores Management System (ESMS), as well as, an Intra-Flight Datalink (IFDL) improvement to increase IFDL bandwidth and enable cooperative functions required to realize Increment 3.2B candidates.

In addition to the aforementioned hardware modifications and integration requirements, Increment 3.2B will develop, certify and integrate a new platform operational flight program to ensure the system interoperability and performance of all increment-level developments.

The development program enhances the air vehicle and training system to improve/enhance F-22 weapons, communications, and Intelligence Surveillance Reconnaissance (ISR) capabilities.

BA5 - This program is in Budget Activity 5, System Development and Demonstration (SDD) because it has passed Milestone B approval and is conducting engineering and manufacturing development tasks aimed at meeting validated requirements prior to full-rate production.

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B. Program Change Summary (\$ in Millions)		FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total
Previous President's Budget		-	-	-	-	-
Current President's Budget		-	-	140.100	-	140.100
Total Adjustments		-	-	140.100	-	140.100
• Congressional General Reductions		-	-			
• Congressional Directed Reductions		-	-			
• Congressional Rescissions		-	-			
• Congressional Adds		-	-			
• Congressional Directed Transfers		-	-			
• Reprogrammings		-	-			
• SBIR/STTR Transfer		-	-			
• Other Adjustments		-	-	140.100	-	140.100
Change Summary Explanation						
In FY13: An increase due to \$140.1M realignment from the baseline PE 0207138F BPAC 674785 to newly established PE 0605213F BPAC 654785 to break out Increment 3.2B funding.						
C. Accomplishments/Planned Programs (\$ in Millions)				FY 2011	FY 2012	FY 2013
Title: Increment 3.2B				-	-	130.951
Description: The F-22 Increment 3.2B Modernization Program consists of the hardware/software development necessary to provide Increment 3.2B capabilities including Intra-Flight Data Link Improvements, Electronic Protection, AIM-9X and AIM-120D integration with Common Weapon Engagement Zone, Geolocate 2.0 and Stores Management System Common Split Bus. The Enhanced Stores Management System (ESMS) program is a hardware development and risk reduction program required to integrate any new weapons on the F-22 beyond Increment 3.1.						
FY 2011 Accomplishments:						

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C. Accomplishments/Planned Programs (\$ in Millions)		FY 2011	FY 2012	FY 2013
<p>In FY11, \$112.9M in PE 0207138F: ESMS program will continue sub-system integration and complete it in the Avionics Integration Lag (AIL). Flight test of the ESMS sub-system will also be performed and scheduled to be completed as well. Requirements Development will be completed and will culminate in a System Design Review. Detailed design of the capabilities will begin. Preliminary work to prepare lab and test facilities for Development, Integrations, and Test will also begin. Efforts leading up to MDD will be accomplished. A significant amount of hardware is being purchased to support Increment 3.2B candidate testing and development.</p> <p>FY 2012 Plans: In FY12, \$113.9M in PE 0207138F: MDD will be accomplished. Work to prepare lab and test facilities for Development, Integration, and Test continues.</p> <p>Increment 3.2B will continue Design efforts;this effort will require all detailed design phase work necessary to start product development and to plan for the remaining phase efforts required to incorporate Increment 3.2 capabilities into the F-22 weapon system as described in teh Increment 3.2 Operational Capability Description Document.</p> <p>FY 2013 Plans: (U) In FY2013: Upon receiving authority to enter into Milestone B, a Critical Design Review will be held culminating the completion of the design work. Increment 3.2B will begin initial work in the Development, Code, and Integration and Test Phase.</p>				
<p>Title: Combined Test Force (CTF)</p> <p>Description: The F-22 Combined Test Force (CTF), located at Edwards Air Force Base, conducts Increment 3.2B full-up testing to assess the synergistic effect of the F-22 combined characteristics of stealth, speed, maneuverability, and integrated avionics in mission accomplishment. The CTF uses operationally significant ground and flight test scenarios, when practical to identify Increment 3.2B performance deficiencies early before they are more difficult and costly to resolve.</p> <p>FY 2011 Accomplishments:</p>		-	-	5.271

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C. Accomplishments/Planned Programs (\$ in Millions)							FY 2011	FY 2012	FY 2013		
In FY2011: Combined Test Force (CTF) FY2011 Effort Description located in baseline program documentation, PE 0207138F. FY 2012 Plans: In FY2012: Combined Test Force (CTF) FY2012 Effort Description located in baseline program documentation, PE 0207138F. FY 2013 Plans: (U) In FY2013: Major software improvements associated with Increment 3.2B include testing of geolocation capability from the baseline Increment 3.1 program as well as integration testing of air-to-air intercept missiles. Other small program requirements are expected to require testing such as Intra-Flight Datalink (IFDL) to ensure integration and interoperability.											
Title: Mission Support Description: Continue mission support of Increment 3.2B FY 2011 Accomplishments: In FY2011: Mission Support FY2011 Effort Description located in baseline program documentation, PE 0207138F. FY 2012 Plans: In FY2012: Mission Support FY2012 Effort Description located in baseline program documentation, PE 0207138F. FY 2013 Plans: (U) In FY2013: Funds provide management and oversight activities in direct support of Inc 3.2B.							-	-	3.878		
Accomplishments/Planned Programs Subtotals							-	-	140.100		
D. Other Program Funding Summary (\$ in Millions)											
Line Item	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
• 1: PE 27163F, AIM-120D RDT&E	5.900	10.810	18.990	0.000	18.990	23.830	23.940	5.820	0.000	Continuing	Continuing
E. Acquisition Strategy											
The Raptor Enhancement Development & Integration (REDI) contract is an Indefinite Delivery/Indefinite Quantity Ordering contract that maximizes flexibility to start, stop, accelerate and decelerate projects as required. The REDI contract was established to be more responsive to evolving war fighter requirements. The REDI contract allows the issuance of orders for the highest priority war fighter capabilities in operationally meaningful capability increments, requirements analysis, contractor cost estimates and studies, development and demonstration of capability enhancements, and unanticipated future war fighter requirements. Each											

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increment is broken into phases to initiate requirements analysis, the design phase and the development, integration and verification phase of a specific incremental development effort.		
F. Performance Metrics Please refer to the Performance Base Budget Overview Book for information on how Air Force resources are applied and how those resources are contributing to Air Force performance goals and most importantly, how they contribute to our mission.		

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2013 Air Force											DATE: February 2012			
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Product Development (\$ in Millions)					FY 2012		FY 2013 Base		FY 2013 OCO		FY 2013 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract	
Increment 3.2B	SS/CPIF	Lockheed Martin:Fort Worth, TX	-	-		130.951	Jan 2013	-		130.951	264.497	395.448	0.000	
Subtotal			-	-		130.951		-		130.951	264.497	395.448	0.000	
Support (\$ in Millions)					FY 2012		FY 2013 Base		FY 2013 OCO		FY 2013 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract	
Subtotal			-	-		-		-		-	0.000	0.000	0.000	
Test and Evaluation (\$ in Millions)					FY 2012		FY 2013 Base		FY 2013 OCO		FY 2013 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract	
Combined Test Force	Various	Various:Various,	-	-		5.271	Oct 2013	-		5.271	95.751	101.022	0.000	
Laboratory Test Operations	SS/Various	Lockheed Martin:Fort Worth, TX	-	-		-		-		-	59.457	59.457	0.000	
Subtotal			-	-		5.271		-		5.271	155.208	160.479	0.000	
Remarks														
FY12 and prior year costs for Increment 3.2B are shown under PE 0207138F. FY13 and later are shown under PE 0605213F.														
Management Services (\$ in Millions)					FY 2012		FY 2013 Base		FY 2013 OCO		FY 2013 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract	
Mission Support	C/Various	Various:Various,	-	-		3.878	Oct 2012	-		3.878	13.595	17.473	0.000	
Subtotal			-	-		3.878		-		3.878	13.595	17.473	0.000	

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	Total Prior Years Cost	FY 2012		FY 2013 Base		FY 2013 OCO		FY 2013 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	-	-		140.100		-		140.100	433.300	573.400	0.000

Remarks

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Exhibit R-4, RDT&E Schedule Profile: PB 2013 Air Force		DATE: February 2012
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Exhibit R-4A, RDT&E Schedule Details: PB 2013 Air Force			DATE: February 2012
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Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
Increment 3.2B System Requirements Review (SRR)*	4	2011	4	2011
Increment 3.2B System Design Review (SDR)*	4	2011	4	2011
Increment 3.2B Material Development Decision (MDD)*	1	2012	1	2012
Increment 3.2B Preliminary Design Review (PDR)*	4	2012	4	2012
Increment 3.2B Milestone B	1	2013	1	2013
Increment 3.2B Development, Integration, & Test	2	2013	2	2013
Increment 3.2B Critical Design Review	3	2013	3	2013