PE NUMBER: 0604240F
PE TITLE: B-2 Advanced Technology Bomber

Exhibit R-2, RDT&E Budget Item Justification	DATE February 2006
BUDGET ACTIVITY 05 System Development and Demonstration (SDD)	PE NUMBER AND TITLE 0604240F B-2 Advanced Technology 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
Total Program Element (PE) Cost	263.550	294.898	224.177	193.143	139.002	97.394	87.638	Continuing	TBD
3843 B-2 Advanced Technology Bomber	263.550	294.898	224.177	193.143	139.002	97.394	87.638	Continuing	TBD

In FY07: The B-2 Mode S/5 Identification Friend or Foe (IFF) and the Proximity Sensor Logic Unit (PSLU) are new start programs.

(U) A. Mission Description and Budget Item Justification

The B-2A Spirit is the world's most advanced long-range strike asset. The unique combination of range, payload and stealth characteristics allow the B-2 to target and destroy the highest value enemy targets, regardless of location, and return home safely. The array of planned RDT&E projects are necessary to both preserve this strategic advantage as well as increase the flexibility and lethality of this "capital" asset. The Radar Modernization (RMP) and Aft Deck Programs address potential fleet grounding issues.

Avionics upgrades include, but are not limited to, Radar Modernization Program (RMP), Link-16 Center Instrument Display (CID)/In-Flight Replanner (IFR), Ultra High Frequency (UHF) SATCOM and Extremely High Frequency (EHF) SATCOM and Computers programs, and Mode S/Mode 5 Identification Friend or Foe (IFF). RMP changes the operating frequency of the radar to enable the B-2 to legally operate in the future. Link-16 CID/IFR upgrade allows the B-2 access to theater tactical data links, improving on-board situational awareness while greatly enhancing the ability of the theater commanders to force package the B-2 with other assets. UHF SATCOM provides beyond line of sight secure communications to aircrews enabling verbal and data updates to missions. EHF SATCOM and Computers provides a secure, survivable communication and Net Ready infrastructure systems upgrade, preserving the critical ability to guarantee communication in a nuclear environment. EHF will provide a dramatic increase in the data flow into and out of the B-2, paving the way for integration into the Global Information Grid (GIG). Upgrades include extremely high frequency components and the computer infrastructure upgrades necessary to host any new capability on the aircraft. Mode S provides enhanced IFF surveillance functions with Air Traffic Management to allow operations in controlled air space; Mode 5 provides enhanced combat identification functions for military Air Traffic Management.

Armament upgrades include, but are not limited to, integration of new and/or advanced weapons into the B-2 to destroy a wider array of target sets as well as destroy more targets per sortie. Specifically, final testing and integration of the GBU-28 C/B program, an improved 5,000 lb "bunker buster" munition providing greater lethality, thus holding more enemy targets at risk. Universal Armament Interface will provide a commonality among all weapon platforms to interface with all standard armament.

Structures improvements include, but are not limited to, Aft Deck upgrade which addresses a long term solution to persistent cracking of aft deck surfaces while preserving the key stealth characteristics that are vital to the survivability of the B-2; windshield redesign provides improved components and windshield manufacturing processes to remedy windshield cracking and electrical conductivity limitations; Proximity Sensor Logic Unit (PSLU) improves unsupportable switches in various aircraft bay doors.

Engine improvements include, but are not limited to, the Digital Electronic Controller for the F-118 engine. This improvement combines two line replaceable units in

the engine that were unsustainable into one sustainable unit, reducing maintenance manhours and increasing aircraft availability rates.

Low Observable (LO) programs include, but are not limited to, improvements to door edge treatments, hot trailing edge, tailpipes, windshield tape, and LO diagnostic tool development. These upgrades decrease maintenance manhours and increase aircraft availability while improving/maintaining LO signature of the fleet.

Continued baseline B-2 support is essential to the execution of all the RDT&E efforts discussed above. The baseline B-2 support ensures support of the B-2 flight test aircraft, maintains B-2 unique flight test infrastructure, ensures the B-2 training systems keep pace with aircraft system updates, ensures the Mission Planning System configuration keeps pace with aircraft and mission planning system updates and provides for other B-2 unique government costs. Likewise, baseline support provides a strategic planning capability to include acquisition planning activities, up to but not including solicitation release, that are needed to prepare for program new start implementation when Congressional authorization is received.

This program is included in budget activity code 05, System Development and Demonstration because of the significant development and testing associated with the maintenance and upgrade of B-2 capabilities.

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

		FY 2005	FY 2006	FY 2007
(U)	Previous President's Budget	270.472	285.205	213.089
(U)	Current PBR/President's Budget	263.550	294.898	224.177
(U)	Total Adjustments	-6.922	9.693	
(U)	Congressional Program Reductions		-0.044	
	Congressional Rescissions	-0.224	-4.263	
	Congressional Increases		14.000	
	Reprogrammings	-1.503		
	SBIR/STTR Transfer	-5.195		

(U) Significant Program Changes:

FY05 changes are due primarily to FY05 SBIR transfer. FY06 changes are due primarily to Congressional add: (+$14.0M EHF SATCOM Processor Upgrade) and CM reductions (-$4.263M).

Exhibit R-2a, RDT&E Project Justification			DATE: February 2006
BUDGET ACTIVITY: 05 System Development and Demonstration (SDD)	PE NUMBER AND TITLE: 0604240F B-2 Advanced Technology Bomber	PROJECT NUMBER AND TITLE: 3843 B-2 Advanced Technology 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
3843	B-2 Advanced Technology Bomber	263.550	294.898	224.177	193.143	139.002	97.394	87.638	Continuing	TBD
	Quantity of RDT&E Articles	0	0	0	0	0	0	0		

(U) A. Mission Description and Budget Item Justification

The B-2A Spirit is the world's most advanced long-range strike asset. The unique combination of range, payload and stealth characteristics allow the B-2 to target and destroy the highest value enemy targets, regardless of location, and return home safely. The array of planned RDT&E projects are necessary to both preserve this strategic advantage as well as increase the flexibility and lethality of this "capital" asset. The Radar Modernization (RMP) and Aft Deck Programs address potential fleet grounding issues.

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Exhibit R-2a, RDT&E Project Justification		DATE February 2006
BUDGET ACTIVITY **05 System Development and Demonstration (SDD)**	PE NUMBER AND TITLE **0604240F B-2 Advanced Technology Bomber**	PROJECT NUMBER AND TITLE **3843 B-2 Advanced Technology Bomber**

Low Observable (LO) programs include, but are not limited to, improvements to door edge treatments, hot trailing edge, tailpipes, windshield tape, and LO diagnostic tool development. These upgrades decrease maintenance manhours and increase aircraft availability while improving/maintaining LO signature of the fleet.

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This program is included in budget activity code 05, System Development and Demonstration because of the significant development and testing associated with the maintenance and upgrade of B-2 capabilities.

(U)	**B. Accomplishments/Planned Program ($ in Millions)**	FY 2005	FY 2006	FY 2007
(U)	Continue B-2 baseline support to include developmental flight test aircraft modification and base of operations; Mission Planning support; trainer support, long range planning, studies, and program integration activities; and other government costs.	16.912	13.899	12.281
(U)	Continue development of EHF SATCOM and Computers, GBU-28 C/B, Aft Deck, Low Observable improvements, airframe structures and other avionics improvements.	29.980	56.618	79.183
(U)	Continue development of RMP including completing Component Advanced Development (CAD) and continuing System Development and Demonstration (SDD) and design and fabrication of new and modified components for test aircraft and six developmental units.	216.658	224.381	120.122
(U)	Begin development of Mode S/Mode 5 IFF and PSLU			12.591
(U)	Total Cost	263.550	294.898	224.177

(U) C. Other Program Funding Summary ($ 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 Cost
(U)	A/C Proc, AF, Combat A/C/BA07/B-2A	0.000	0.000	0.000	0.000	0.000			0.000	0.000
(U)	A/C Proc, AF, Post Prod Support/BA07	6.661	7.207	7.693	0.000	0.000			0.000	TBD
(U)	A/C Proc, AF, Modifications/BA05/B-2A	93.896	58.347	191.282	323.605	114.539	84.245	122.930	Continuing	TBD
(U)	A/C Prod, AF, ICS	30.002	21.817	11.709	8.860	9.702			Continuing	TBD
(U)	A/C Proc, AF, Cmn Spt	0.000	0.000	0.000	0.000	0.000			0.000	TBD

Exhibit R-2a, RDT&E Project Justification			DATE: February 2006
BUDGET ACTIVITY: 05 System Development and Demonstration (SDD)	PE NUMBER AND TITLE: 0604240F B-2 Advanced Technology Bomber	PROJECT NUMBER AND TITLE: 3843 B-2 Advanced Technology Bomber	

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

	Eq/BA07/Items<$2M							
(U)	A/C Proc, AF, A/C Initial Spares/BA06/B-2A	2.222	6.544	2.653	4.152	1.051	0.000	TBD
(U)	Proc (Other), AF/BA 02,03, 04/B-2A	8.168	7.708	8.096	8.383	8.628	Continuing	TBD
(U)	Military Construction/BA01	0.000	0.000	0.000	0.000	0.000	0.000	TBD

(U) D. Acquisition Strategy

Key elements of the overall acquisition strategy include: use of sole source contract with a prime/integrating contractor (Northrop Grumman); use of cost plus award fee (CPAF) development contracts; and the combination of developmental upgrades with software sustainment blocks to minimize the number of software releases, aircraft downtime, and differences in fielded configurations.

Exhibit R-3, RDT&E Project Cost Analysis

DATE: **February 2006**

BUDGET ACTIVITY: **05 System Development and Demonstration (SDD)**

PE NUMBER AND TITLE: **0604240F B-2 Advanced Technology Bomber**

PROJECT NUMBER AND TITLE: **3843 B-2 Advanced Technology Bomber**

(U) Cost Categories (Tailor to WBS, or System/Item Requirements) ($ in Millions)	Contract Method & Type	Performing Activity & Location	Total Prior to FY 2005 Cost	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) Product Development												
Air Vehicle	Multiple	Various		245.752	Oct-04	279.693	Oct-05	210.945	Oct-06	Continuing	TBD	
Aircrew Training	CPIF	Various		0.000	N/A	0.421	Feb-06	0.075	Apr-06	Continuing	TBD	
Mission Planning	Multiple	Various		2.664	Mar-05	1.935	Jan-06	1.075	Jan-07	Continuing	TBD	
Engines	Multiple	Various		0.000	N/A	0.000	N/A	0.000	N/A		0.000	
Subtotal Product Development			0.000	248.416		282.049		212.095		Continuing	TBD	0.000
Remarks:												
(U) Support												
Other Govt Costs	N/A	Various		8.882		9.834		7.700		Continuing	TBD	
Subtotal Support			0.000	8.882		9.834		7.700		Continuing	TBD	0.000
Remarks:												
(U) Test & Evaluation												
Govt Test	N/A	AFFTC		6.252		3.015		4.382		Continuing	TBD	
Subtotal Test & Evaluation			0.000	6.252		3.015		4.382		Continuing	TBD	0.000
Remarks:												
(U) Management												
Cancelled Year Invoices	N/A	Various		0.000		0.000		0.000			0.000	
Subtotal Management			0.000	0.000		0.000		0.000		0.000	0.000	0.000
Remarks:												
(U) Total Cost			0.000	263.550		294.898		224.177		Continuing	TBD	0.000

Award dates listed are the first incremental funding opportunity associated with cost categories

Exhibit R-4, RDT&E Schedule Profile		DATE February 2006
BUDGET ACTIVITY 05 System Development and Demonstration (SDD)	PE NUMBER AND TITLE 0604240F B-2 Advanced Technology Bomber	PROJECT NUMBER AND TITLE 3843 B-2 Advanced Technology Bomber

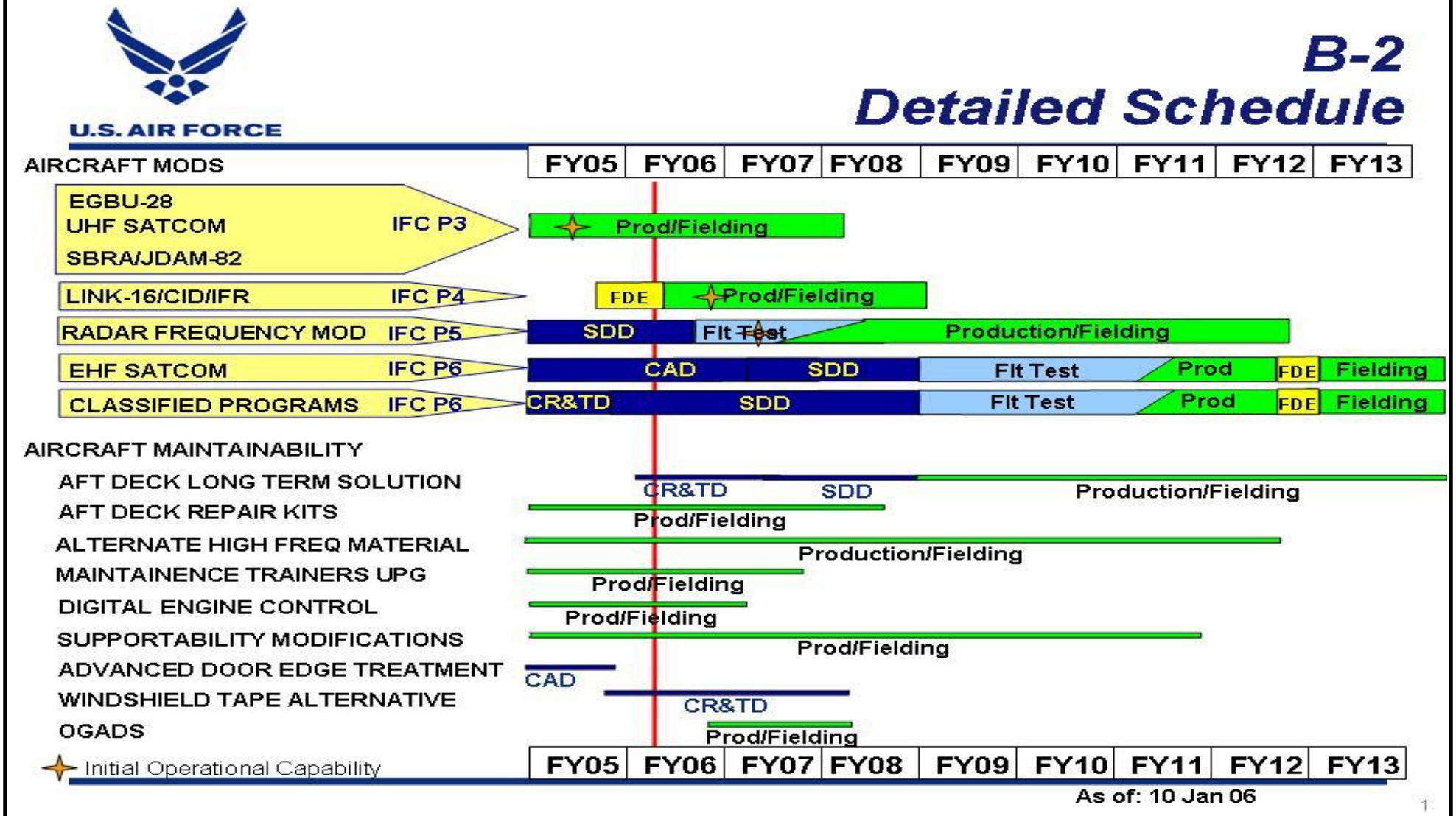

Exhibit R-4a, RDT&E Schedule Detail		DATE February 2006
BUDGET ACTIVITY **05 System Development and Demonstration (SDD)**	PE NUMBER AND TITLE **0604240F B-2 Advanced Technology Bomber**	PROJECT NUMBER AND TITLE **3843 B-2 Advanced Technology Bomber**

(U) **Schedule Profile**	FY 2005	FY 2006	FY 2007
(U) EHF CAD Extension (FY05 Congressional Plus-up)	3Q		
(U) EHF SDD Contract Award			2Q
(U) Link-16/CID/IFR Flight Test Completes		1Q	
(U) GBU-28 C/B Contract Award	2Q		
(U) GBU-28 C/B Flight Test Begins/Completes (FY05 Congressional Plus-up)		1Q	
(U) RMP Flight Test Begins		2Q	
(U) WTA CR&TD Contract Award	4Q		
(U) Aft Deck CR&TD Contract Award		2Q	