

UNCLASSIFIED

RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)

DATE

February 2003

BUDGET ACTIVITY

PE NUMBER AND TITLE

PROJECT

05 - System Development and Demonstration (SDD)**0604226F B-1B****4596**

COST (\$ in Thousands)	FY 2002 Actual	FY 2003 Estimate	FY 2004 Estimate	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	Cost to Complete	Total Cost
4596 Conventional Mission Upgrades	95,932	157,173	88,703	76,918	107,353	64,405	49,744	44,668	Continuing	TBD
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0	0

(U) **A. Mission Description**

This program provides RDT&E funding for the B-1B Conventional Mission Upgrade Program (CMUP). Funding in the FYDP includes integration of advanced conventional weapons including variants of the Joint Direct Attack Munition (JDAM), Wind Corrected Munitions Dispenser (WCMD), Joint Stand-Off Weapon (JSOW), and Joint Air to Surface Stand-Off Missile (JASSM). Funding for upgrades to the Electronic Countermeasures (ECM) suite is also in the FYDP. Additional efforts include an upgrade to the avionics computers to enable simultaneous carriage of multiple weapon types, provide growth capability, and reduce support costs; development of the B-1B mission planning interface to the Air Force Mission Support System (AFMSS); and upgrades to the B-1B training systems to keep them current with the aircraft's configuration. Funding is provided for development efforts to improve the display of threat data and situational awareness (S/A) information (to include datalink) to the aircrew and to record mission information. ALQ-161 defensive system upgrades to address reliability, maintainability, diminishing manufacturing sources (DMS) and performance deficiencies on selected line replaceable units (LRUs) are included. Reliability and DMS deficiencies and performance improvements to the radar subsystem are addressed in this program also. Funding is provided for engineering and planning studies for potential future weapon system enhancements (weapons, sensors, and avionics) and for weapon system operational/safety, supportability, maintainability, reliability, and Total Ownership Cost (TOC) improvements. Also included are the B-1 platform unique development items for integration of Link 16 and Beyond Line of Sight Datalinks and associated weapons management enhancements. Development of enhancements to the ALE-50 decoy is funded in FY04 to address new threats. The Defensive System Upgrade Program (DSUP) has been canceled; FY03 funds will be applied to DSUP termination.

(U) **FY 2002 (\$ in Thousands)**

(U) \$0	Accomplishment/Planned Program
(U) \$69,217	Continued Conventional Mission Upgrade Program (CMUP) contractual efforts
(U) \$2,341	Government Furnished Equipment (GFE)
(U) \$17,217	Government Flight Test, Live Fire Test & Evaluation and General Test Support
(U) \$5,457	Advisory and Assistance Services (A&AS)
(U) \$1,700	Modeling & Simulation / Studies & Analyses
(U) \$95,932	Total

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05 - System Development and Demonstration (SDD)**0604226F B-1B****4596**(U) **A. Mission Description Continued**(U) FY 2003 (\$ in Thousands)

(U)	\$0	Accomplishment/Planned Program
(U)	\$107,314	Continued Conventional Mission Upgrade Program (CMUP) contractual efforts
(U)	\$1,000	Government Furnished Equipment (GFE)
(U)	\$42,507	Government Flight Test, Live Fire Test & Evaluation and General Test Support
(U)	\$5,232	Advisory and Assistance Services (A&AS)
(U)	\$1,120	Modeling & Simulation / Studies & Analyses
(U)	\$157,173	Total

(U) FY 2004 (\$ in Thousands)

(U)	\$0	Accomplishment/Planned Program
(U)	\$15,866	Begin ALE-50 decoy enhancements
(U)	\$51,376	Continued Conventional Mission Upgrade Program (CMUP) contractual efforts
(U)	\$15,176	Government Flight Test, Live Fire Test & Evaluation and General Test Support
(U)	\$5,185	Advisory and Assistance Services (A&AS)
(U)	\$1,100	Modeling & Simulation Studies & Analyses
(U)	\$88,703	Total

(U) **B. Budget Activity Justification**

(U) The B-1 CMUP program is included in Budget Activity 5, System Demonstration and Development. The CMUP program provides new capabilities to the B-1B weapon system, including GPS, Near-Precision Weapons, enhanced computers, datalink, and upgraded ECM. These capabilities require significant software development and testing.

(U) **C. Program Change Summary (\$ in Thousands)**

	<u>FY 2002</u>	<u>FY 2003</u>	<u>FY 2004</u>	<u>Total Cost</u>
(U) Previous President's Budget	150,799	160,688	90,637	TBD
(U) Appropriated Value	152,307	160,688		TBD
(U) Adjustments to Appropriated Value				
a. Congressional/General Reductions	-1,508	-1,715		
b. Small Business Innovative Research	-4,911			

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(U) <u>C. Program Change Summary (\$ in Thousands) Continued</u>											
				<u>FY 2002</u>	<u>FY 2003</u>	<u>FY 2004</u>	<u>Total Cost</u>				
	c. Omnibus or Other Above Threshold Reprogram				-1,800						
	d. Below Threshold Reprogram			-3,887							
	e. Rescissions			-46,069							
(U)	Adjustments to Budget Years Since FY 2003 PBR				0	-1,934	TBD				
(U)	Current Budget Submit/FY 2004 PBR			95,932	157,173	88,703	TBD				
(U)	<u>Significant Program Changes:</u>										
	FY03 funds to be used for termination of DSUP project. Congress notified of DSUP termination 30 Dec '02.										
(U) <u>D. Other Program Funding Summary (\$ in Thousands)</u>											
		<u>FY 2002</u>	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>	<u>Cost to</u>	<u>Total Cost</u>
		<u>Actual</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Complete</u>	
(U)	Appn 10, PE 0101126F, B-1B, Aircraft Procurement BP11, Mods	48,477	103,853	91,623	34,384	25,333	53,488	82,490	27,791	243,472	710,911
(U)	Appn 10, PE 0101126F, B-1B, Aircraft Procurement BP16, Initial Spares	15,363	7,815	5,839	20,196	21,865	9,456	9,091	863	9,306	99,794
(U)	Appn 10, PE 0101126F, B-1B, Aircraft Procurement BP12, Common Support Equipment	16,598	18,703	32,321	5,154	4,998	4,959	5,294	5,229	0	93,256
(U)	Appn 10, PE 0101126F, B-1B, Aircraft Procurement BP13, Post Production Charges	6,369	1,957	8,448	12,170	13,401	9,962	0	0	0	52,307
(U)	Appn 10, PE 0207446F, Bomber TDL Core BP11	0	0	0	0	0	21,778	12,513	12,874	84,325	131,490
(U)	Appn 36, PE 0207446F,	0	0	12,959	68,353	77,876	31,841	0	0	0	191,029
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	<u>FY 2002</u>	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>	<u>Cost to</u>	<u>Total Cost</u>
	<u>Actual</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Complete</u>	

Bomber TDL Core

Related RDT&E:

(U) Program Element 0205164F, Global Positioning System (GPS)

(U) Program Element 0207325F, Joint Air to Surface Standoff Missile (JASSM)

(U) Program Element 0604727F/N, Joint Stand-Off Weapon (JSOW)

(U) Program Element 0604600F, Wind Corrected Munitions Dispenser (WCMD)

(U) Program Element 0208006F, Air Force Mission Support System (AFMSS)

(U) Program Element 0604270F, Electronic Warfare (EW) Development

(U) E. Acquisition Strategy

(U) Key elements of the overall CMUP acquisition strategy include: use of a sole source contract with a prime/integrating contractor (Boeing); assignment of Total System Installed Performance Responsibility (TSIPR) to the integrating contractor; use of cost plus award fee (CPAF) development contracts; and combining developmental upgrades with software sustainment blocks to minimize the number of software releases, aircraft downtime and differences in fielded configurations.

(U) F. Schedule Profile

	<u>FY 2002</u>				<u>FY 2003</u>				<u>FY 2004</u>			
	1	2	3	4	1	2	3	4	1	2	3	4

(U) Defensive System Upgrade Program

(U) T&E Milestones

(U) Mission Planning System (MPS)

(U) T&E Milestones

(U) Contract Milestones

(U) - S/W Release 2.02 Delivery

X

(U) - S/W Release 2.1 Delivery

X

(U) Training Systems

(U) Acquisition Milestones

(U) - Complete Block E1/JJI (2Q FY05)

(U) Weapons

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(U) F. Schedule Profile Continued

		<u>FY 2002</u>				<u>FY 2003</u>				<u>FY 2004</u>			
		1	2	3	4	1	2	3	4	1	2	3	4
(U)	Engineering Milestones												
(U)	- JSOW/JASSM CDR			*									
(U)	- Computer/WCMD Sys FCA/PCA					*							
(U)	- JSOW/JASSM FCA/PCA										X		
(U)	T&E Milestones												
(U)	- JSOW/JASSM Ground Test								X				
(U)	- Complete Computer/WCMD DT&E			*									
(U)	- Start JSOW/JASSM DT&E								X				
(U)	- Complete JSOW/JASSM DT&E										X		
(U)	- Start Computer/WCMD IOT&E				*								
(U)	- Complete Computer/WCMD OT&E					*							
(U)	Acquisition Milestones												
(U)	- Complete Computer/WCMD Milestone III								X				
(U)	Fully Integrated Datalinks												
(U)	Acquisition Milestones												
(U)	- Milestone B Decision										X		
(U)	Contract Milestones												
(U)	- Development Contract Award											X	

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RDT&E PROGRAM ELEMENT/PROJECT COST BREAKDOWN (R-3)								DATE February 2003			
BUDGET ACTIVITY				PE NUMBER AND TITLE					PROJECT		
05 - System Development and Demonstration (SDD)				0604226F B-1B					4596		
(U) <u>A. Project Cost Breakdown (\$ in Thousands)</u>											
						<u>FY 2002</u>		<u>FY 2003</u>		<u>FY 2004</u>	
(U)	CMUP contractual efforts					69,217		107,314		67,242	
(U)	Government flight test					17,217		42,507		15,176	
(U)	Government Furnished Equipment					2,341		1,000		0	
(U)	Advisory and Assistance Services (A&AS)					5,457		5,232		5,185	
(U)	Modeling & Simulation / Studies & Analyses					1,700		1,120		1,100	
(U)	Program Management & Administration (PMA)					0		0		0	
(U)	Total					95,932		157,173		88,703	
(U) <u>B. Budget Acquisition History and Planning Information (\$ in Thousands)</u>											
(U) <u>Performing Organizations:</u>											
<u>Contractor or</u>		<u>Contract</u>									
<u>Government</u>		<u>Method/Type</u>		<u>Award or</u>		<u>Performing</u>		<u>Project</u>			
<u>Performing</u>		<u>or Funding</u>		<u>Obligation</u>		<u>Activity</u>		<u>Office</u>		<u>Total Prior</u>	
<u>Activity</u>		<u>Vehicle</u>		<u>Date</u>		<u>EAC</u>		<u>EAC</u>		<u>to FY 2002</u>	
<u>Product Development Organizations</u>											
(U) DSUP*											
(U)	TBC	SS/CPAF	May 93	31,918	31,918	31,918	0	0	0	0	31,918
(U)	TBC	SS/CPAF	June 97	280,637	280,637	209,994	15,454	55,189	0	0	280,637
* FY03 funds to be applied to DSUP termination											
(U) Mission Planning System											
(U)	Lockheed-Sanders	C/CPAF	Aug 94	545	545	545	0	0	0	0	545
(U)	Northrup Grumman	C/CPAF	Dec 95	56,028	56,028	51,299	400	3,618	711	0	56,028
(U) Training Systems											
(U)	Lockheed-Martin	C/CPAF	Jun 94	13,284	13,284	13,284	0	0	0	0	13,284
(U)	INLX	C/CPAF	Jun 99	35,816	35,816	21,139	100	5,723	6,897	1,957	35,816
(U) Weapons											
(U)	TBC - CBU's	SS/CPFF	Mar 93	4,960	4,960	4,960	0	0	0	0	4,960
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(U) <u>Performing Organizations Continued:</u>										
<u>Product Development Organizations</u>										
(U)	TBC - CBU's	SS/CPFF	Jan 94	16,314	16,314	16,314	0	0	0	16,314
(U)	TBC - FWEP	SS/T&M	Sep 98	3,866	3,866	3,866	0	0	0	3,866
(U)	TBC - EFX	SS/T&M	Feb 98	5,727	5,727	5,727	0	0	0	5,727
(U)	TBC- JDAM/GPS	SS/CPFF	Aug 93	72,223	72,223	72,223	0	0	0	72,223
Pre-SDD										
(U)	TBD - INS/GSS	TBD	Jan 06	53,579	53,579	0	0	0	53,579	53,579
(U)	TBD - RADAR	TBD	Jan 06	66,800	66,800	0	0	0	66,800	66,800
Improvements										
(U)	AIL - ALQ-161	SS/CPFF	Apr 02	94,301	94,301	0	1,600	12,890	21,570	94,301
R&M/DMS										
(U)	ATU Modification	TBD	Nov 05	8,250	8,250	0	0	0	8,250	8,250
(U)	ALE-50 Upgrade	TBD	Feb 04	13,797	13,797	0	0	0	13,797	13,797
(U)	TBC - S/A	SS/CPFF	May 03	7,935	7,935	0	1,750	6,185	0	7,935
Improvements										
(U)	TBD - TSAS/AVTR	TBD	TBD	0	0	0	0	0	0	0
Improvements										
(U)	TBD - VSD	TBD	Jan 07	24,501	24,501	0	0	0	24,501	24,501
Improvements										
(U)	TBD - CITS/EMUX	TBD	Jan 05	29,808	29,808	0	0	0	29,808	29,808
R&M/DMS										
(U)	TBD -JMPS Transition	TBD	Jan 05	0	0	0	0	0	0	0
(U)	TBD -FIDL	TBD	May 04	58,125	58,125	0	0	0	1,145	58,125
(U)	TBC- JDAM/ GPS	SS/CPAF	Mar 95	272,404	272,404	272,404	0	0	0	272,404
SDD										
(U)	TBC-ACBM	SS/CPAF	Mar 98	1,900	1,900	1,900	0	0	0	1,900
(U)	TBC-Wing Sweep	SS/T&M	Jul 97	1,089	1,089	1,089	0	0	0	1,089
(U)	TBC- Computer	SS/CPAF	May 96/Jan 97	189,354	189,354	172,075	7,256	10,023	0	189,354
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(U) <u>Performing Organizations Continued:</u>											
<u>Product Development Organizations</u>											
(U)	TBC-WCMD	SS/CPAF	May 96/Jan 97	53,107	53,107	41,325	10,082	1,700	0	0	53,107
(U)	Lockheed-Martin - WCMD	SS/CPAF	Jan 97	1,801	1,801	1,801	0	0	0	0	1,801
(U)	TBC- JSOW/ JASSM	SS/CPAF	Mar 99	85,666	85,666	17,983	32,575	11,986	23,122	0	85,666
(U)	Lockheed- Martin - JASSM	SS/T&M	Jan 99	9,499	9,499	9,499	0	0	0	0	9,499
(U)	Raytheon -JSOW	SS/T&M	Jan 99	2,510	2,510	2,510	0	0	0	0	2,510
(U)	TBD - Future CMUP	TBD	TBD	0	0	0	0	0	0	Continuing	TBD
Related SDD											
<u>Support and Management Organizations</u>											
(U)	A&AS	Various	Annual	58,578	58,578	28,790	5,457	5,232	5,185	13,914	58,578
(U)	Studies & Analyses / Modeling & Sim	Various	Various	34,609	34,609	24,689	1,700	1,120	1,100	6,000	34,609
(U)	Program Mgmt & Admin	Various	Various	32,124	32,124	32,124	0	0	0	0	32,124
<u>Test and Evaluation Organizations</u>											
(U)	Modernization/DataLinks										
(U)	AFFTC	P.O.	Various							74,348	74,348
(U)	DSUP*										
* FY03 funds to be applied to DSUP termination											
(U)	AFFTC	P.O.	Various	50,254	50,254	17,761	6,816	25,677	0	0	50,254
(U)	Weapons										
(U)	AFFTC	P.O.	Various	154,450	154,450	87,985	10,401	16,830	15,176	24,058	154,450
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(U) <u>Government Furnished Property:</u>									
	<u>Contract</u>								
	<u>Method/Type</u>	<u>Award or</u>							
<u>Item</u>	<u>or Funding</u>	<u>Obligation</u>	<u>Delivery</u>	<u>Total Prior</u>	<u>Budget</u>	<u>Budget</u>	<u>Budget</u>	<u>Budget to</u>	<u>Total</u>
<u>Description</u>	<u>Vehicle</u>	<u>Date</u>	<u>Date</u>	<u>to FY 2002</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>FY 2004</u>	<u>Complete</u>	<u>Program</u>
<u>Product Development Property</u>									
(U) DSUP									
(U) Various	Various	Various	Various	3,892	2,308	1,000	0	0	7,200
(U) Weapons									
(U) Various	Various	Various	Various	2,018	33	0	0	0	2,051
<u>Support and Management Property</u>									
<u>Test and Evaluation Property</u>									
				<u>Total Prior</u>	<u>Budget</u>	<u>Budget</u>	<u>Budget</u>	<u>Budget to</u>	<u>Total</u>
<u>Subtotals</u>				<u>to FY 2002</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>FY 2004</u>	<u>Complete</u>	<u>Program</u>
Subtotal Product Development				957,765	71,558	108,314	67,242	TBD	TBD
Subtotal Support and Management				85,603	7,157	6,352	6,285	19,914	125,311
Subtotal Test and Evaluation				105,746	17,217	42,507	15,176	98,406	279,052
Total Project				1,149,114	95,932	157,173	88,703	TBD	TBD

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