

## UNCLASSIFIED

PE NUMBER: 0604327F

PE TITLE: Hardened Target Munitions

## Exhibit R-2, RDT&amp;E Budget Item Justification

DATE

February 2005

## BUDGET ACTIVITY

## 04 Advanced Component Development and Prototypes (ACD&amp;P)

## PE NUMBER AND TITLE

## 0604327F Hardened Target Munitions

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	9.089	6.327	0.000	0.000	0.000	0.000	0.000	0.000	0.000	22.425
4641 Hard and Deeply Buried Target Defeat System (HDBTDS)	9.089	6.327	0.000	0.000	0.000	0.000	0.000	0.000	0.000	22.425

(U) **A. Mission Description and Budget Item Justification**

This program is an effort designed to hold at risk those highest priority assets essential to the enemy's war fighting ability, which are heavily defended and protectively hardened. The Air Force is improving capability to attack hardened and/or deeply buried targets during adverse environmental conditions. The performance of the current 4,700-lb BLU-122, used on the GBU-28 GPS/laser-guided bomb, is being greatly enhanced through the design modification of the BLU-122 warhead, improving its penetration, lethality, and survivability. This modification will increase the number of deeply buried targets held at risk. In addition, some existing targets held at risk will require fewer weapons, therefore reducing the number of missions necessary to defeat a target. The MIL-STD 1760 conduit will also be extended to connect the guidance system to the fuze to support a future in-flight fuze reprogramming capability. The existing GBU-28 B/B--B-2 interface will be maintained and the GBU-28 will also be integrated onto the F-15E through the Joint Direct Attack Munition (JDAM) Smart Unknown Weapon Interface. This program was a NEW START in FY03. The program is in Budget Activity 04 (BA 04) because the program will develop and demonstrate a hard target munition capability to defeat hard and deeply buried targets not currently held at risk. This program enters initial production during the last two quarters of FY05.

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

	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>
(U) Previous President's Budget	9.551	6.383	0.000	0.000
(U) Current PBR/President's Budget	9.089	6.327	0.000	0.000
(U) Total Adjustments	-0.462	-0.056		
(U) Congressional Program Reductions	0.000	-0.056		
Congressional Rescissions	0.000	0.000		
Congressional Increases	0.000	0.000		
Reprogrammings	-0.173	0.000		
SBIR/STTR Transfer	-0.289	0.000		
(U) <u>Significant Program Changes:</u>				

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## Exhibit R-2a, RDT&amp;E Project Justification

DATE

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BUDGET ACTIVITY 04 Advanced Component Development and Prototypes (ACD&P)					PE NUMBER AND TITLE 0604327F Hardened Target Munitions			PROJECT NUMBER AND TITLE 4641 Hard and Deeply Buried Target Defeat System (HDBTDS)		
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
4641 Hard and Deeply Buried Target Defeat System (HDBTDS)	9.089	6.327	0.000	0.000	0.000	0.000	0.000	0.000	0.000	22.425
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0		

(U) **A. Mission Description and Budget Item Justification**

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(U) **B. Accomplishments/Planned Program (\$ in Millions)**

	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>
(U) Design warhead, integrate explosive and upgrade case material	0.638	0.404		
(U) Weapon system and aircraft integration	2.919	0.925		
(U) Plan, prepare, and test for redesigned of warhead	3.784	4.471		
(U) Perform field agency activities, including project office and computer support to manage the Hardened Target Munitions program	0.356	0.260		
(U) System Engineering and Technical Analysis (SETA) support including independent analysis and evaluation of prototype warhead designs	1.392	0.267		
(U) Total Cost	9.089	6.327	0.000	0.000

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

	<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>FY 2010</u>	<u>FY 2011</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) Procurement of Ammunition, Air Force (PE 0208030F)		19.600	32.000	32.000					0.000	83.600

(U) **D. Acquisition Strategy**

The warhead design contract was awarded competitively and the weapon system modification and integration contract was awarded sole source because the GBU-28 was developed at contractor expense and the government does not own the technical data package.

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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 0604327F Hardened Target Munitions						PROJECT NUMBER AND TITLE 4641 Hard and Deeply Buried Target Defeat System (HDBTDS)		
(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) <u>Product Development</u>														
General Dynamics Ordnance and Tactical Systems	CPFF/PI	Niceville, FL	4.414	0.638		0.404						0.000	5.456	5.720
Raytheon Company	T&M	Tucson, AZ	0.317	0.015								0.000	0.332	0.332
Raytheon Company	CPIF	Tucson, AZ	0.915	2.761	Jan-04	0.925							4.601	4.953
Subtotal Product Development			5.646	3.414		1.329		0.000		0.000		0.000	10.389	11.005
Remarks:	Contract award to General Dynamics in June 2003													
(U) <u>Support</u>														
Laboratory Support (AFRL Eglin AFB, FL)			0.500	0.000		0.000							0.500	
Air Armament Center SPO (AAC/YU)	MIPR	Various	0.159	0.356		0.260						0.000	0.775	
Warhead Pallets (AAC/YEC Eglin AFB, FL)	Various	Eglin AFB, FL	0.000	0.143		0.000						0.000	0.143	
Support Contracts	AFMC Form 277	Eglin AFB, FL	0.127	1.392	Oct-03	0.267	Oct-04					0.000	1.786	
Subtotal Support			0.786	1.891		0.527		0.000		0.000		0.000	3.204	0.000
Remarks:														
(U) <u>Test &amp; Evaluation</u>														
Eglin Ground Test Support			0.017	1.322		0.463							1.802	
Eglin Flight Test Support	AFMC Form 277	Eglin AFB, FL	0.000	0.494	Jun-04	1.559	Dec-04					0.000	2.053	
Defense Threat Reduction Agency (DTRA)	MIPR	White Sands Missile Range, NM	0.150	0.218	Jul-04	0.000	Dec-04					0.000	0.368	
B-2 SPO	MIPR	Edwards AFB, CA	0.000	0.874		1.424							2.298	
Applied Research Associates - Test Design Support	MIPR	Albuquerque, NM	0.360	0.000		0.000							0.360	
Naval Weapons Center - Arena and IM Testing	MIPR	China Lake, CA	0.000	0.349		0.000							0.349	
B-2 System Program Office (SPO)/SK Test Support	MIPR	Wright Patterson AFB, OH	0.050	0.527		1.025							1.602	
Subtotal Test & Evaluation			0.577	3.784		4.471		0.000		0.000		0.000	8.832	0.000
Remarks:														
(U) <u>Management</u>													0.000	
Subtotal Management			0.000	0.000		0.000		0.000		0.000		0.000	0.000	0.000
Remarks:														
(U) Total Cost			7.009	9.089		6.327		0.000		0.000		0.000	22.425	11.005
Project 4641	R-1 Shopping List - Item No. 57-4 of 57-6												Exhibit R-3 (PE 0604327F)	

## Exhibit R-4, RDT&amp;E Schedule Profile

DATE

February 2005

## BUDGET ACTIVITY

04 Advanced Component Development and Prototypes (ACD&amp;P)

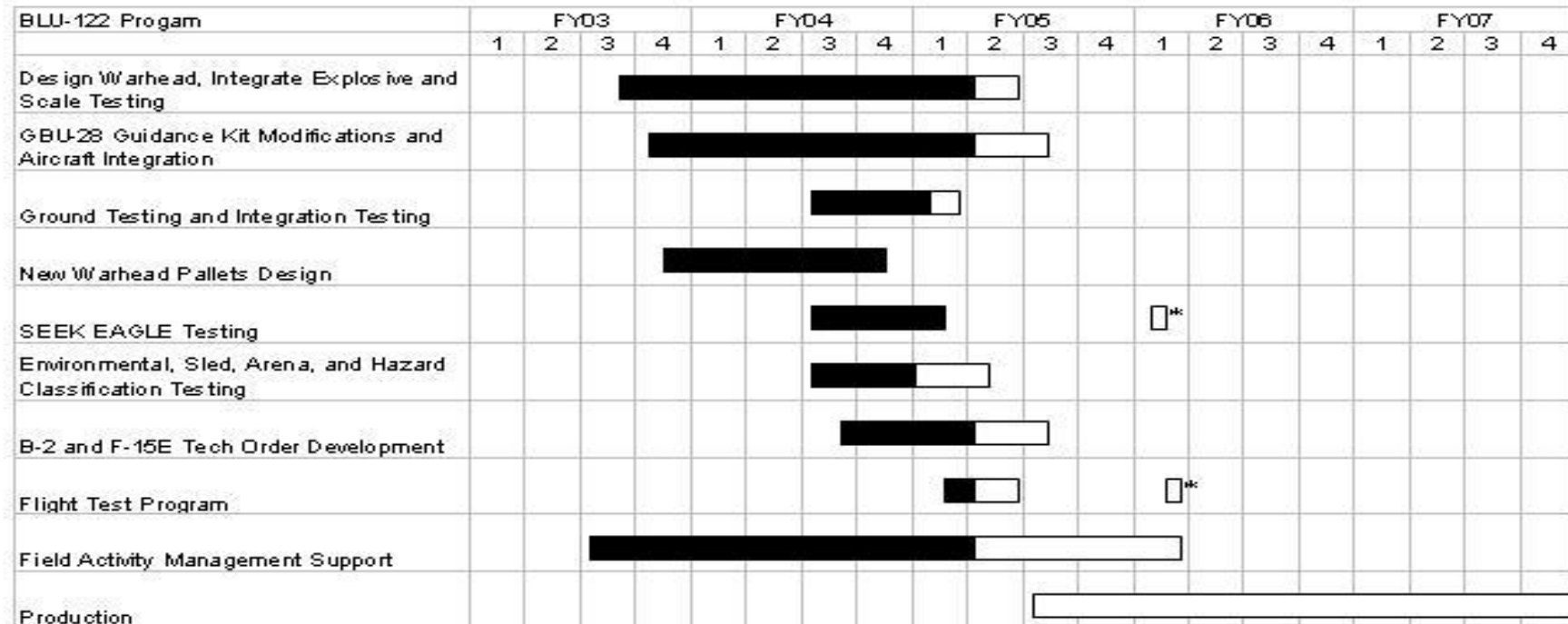
## PE NUMBER AND TITLE

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## PROJECT NUMBER AND TITLE

4641 Hard and Deeply Buried Target Defeat System (HDBTDS)

# BLU-122 Program



\*B-2 Flight Test Demo Delayed until 1QFY06.

As Of: Jan 05

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Exhibit R-4a, RDT&E Schedule Detail			DATE	
			February 2005	
BUDGET ACTIVITY	PE NUMBER AND TITLE		PROJECT NUMBER AND TITLE	
04 Advanced Component Development and Prototypes (ACD&P)	0604327F Hardened Target Munitions		4641 Hard and Deeply Buried Target Defeat System (HDBTDS)	
(U) <u>Schedule Profile</u>	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>
(U) Design Warhead, Integrate Explosive and Scale Testing (3Q FY03)		1-2Q		
(U) GBU-28 Guidance Kit Modifications and Aircraft Integration (4Q FY03)		1-3Q		
(U) Ground Testing and Integration Testing	3Q	1Q		
(U) New Warhead Pallets Design (4Q FY03)	1Q			
(U) B-2 SEEK EAGLE Testing*			1Q	
(U) Environmental, Sled, Arena, and Hazard Classification Testing	3Q	1-2Q		
(U) B-2 and F-15E Tech Order Development	3Q	1-2Q		
(U) Flight Test Program**		1-4Q	1Q	
(U) Field Activity Management Support (3Q FY03)		1-4Q	1Q	
Production 3Q FY2005 through 4Q FY2007				