Exhibit R-2, RDT&E Budget Item Justification: PB 2013 Air Force

**R-1 ITEM NOMENCLATURE** 

APPROPRIATION/BUDGET ACTIVITY

3600: Research, Development, Test & Evaluation, Air Force

PE 0604327F: Hardened Target Munitions

BA 4: Advanced Component Development & Prototypes (ACD&P)

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	22.275	33.248	16.711	-	16.711	0.103	-	-	-	Continuing	Continuing
645341: Direct Strike Penetrator Systems	22.275	33.248	16.711	-	16.711	0.103	-	-	-	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		

#### A. Mission Description and Budget Item Justification

Direct Strike Penetrator Systems project includes development of Massive Ordnance Penetrator (MOP), an advanced precision guided penetrator munition that will provide the Air Force with an improved capability using air-to-surface conventional munitions to attack HDBTs, such as bunker and tunnel facilities, with fewer weapons and number of missions necessary to defeat targets and increase overall survivability. The system will hold at risk those highest priority assets essential to the enemy's warfighting ability, which are heavily defended and protected, providing a critical global strike capability not currently met by inventory conventional weapons. Direct Strike Penetrator Systems also includes an analysis and report to evaluate the performance, operational suitability, and cost of alternative hard target defeat systems.

This program is in Budget Activity 4. Advanced Component Development and Prototypes (ACD&P) because effort are necessary to evaluate integrated technologies. representative modes or prototype systems in high fidelity and realistic operating environment.

B. Program Change Summary (\$ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total
Previous President's Budget	22.389	38.248	1.624	-	1.624
Current President's Budget	22.275	33.248	16.711	-	16.711
Total Adjustments	-0.114	-5.000	15.087	=	15.087
<ul> <li>Congressional General Reductions</li> </ul>	-	-			
<ul> <li>Congressional Directed Reductions</li> </ul>	-	-5.000			
<ul> <li>Congressional Rescissions</li> </ul>	-	-			
<ul> <li>Congressional Adds</li> </ul>	-	_			
<ul> <li>Congressional Directed Transfers</li> </ul>	-	_			
<ul> <li>Reprogrammings</li> </ul>	-	_			
SBIR/STTR Transfer	-	-			
<ul> <li>Other Adjustments</li> </ul>	-0.114	-	15.087	-	15.087

## **Change Summary Explanation**

In the FY12 appropriation, Congress reduced requested funding by \$5M due to contract delays. In FY13 PB, the Air Force added \$15.087M for MOP improvements.

PE 0604327F: Hardened Target Munitions

UNCLASSIFIED Page 1 of 7

R-1 Line #45

**DATE:** February 2012

Air Force

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 0604327F: Hardened Target Munitions BA 4: Advanced Component Development & Prototypes (ACD&P) FY 2013 C. Accomplishments/Planned Programs (\$ in Millions) FY 2013 FY 2013 FY 2011 FY 2012 **Base** OCO Total Title: Massive Ordinance Penetrator (MOP) Weapon Development 19.000 8.863 7.948 7.948 Description: Massive Ordnance Penetrator (MOP) Weapon Development. Make changes to the B-52 Technology Demonstration design to allow integration of the MOP onto the B-2A. FY 2011 Accomplishments: Complete analysis and provide data/documentation required to support B-2A design, integration, and weapon system effectiveness. Finalize system performance specification, which documents the weapon performance based on ground and flight tests. Update design to reflect changes needed to meet the weapon system performance objectives. FY 2012 Plans: Continue to design update to ensure weapon-to-aircraft compatibility and weapon performance in the operating environment. Updating warhead design and fuzing to provide full capability against COCOM designated target set., Engineering support and any required updates to mission software. Modifications to source technical orders to include MOP. Labor and repair parts for MOP weapon trainer. FY 2013 Base Plans: Engineering support for testing of new warhead and fuzing systems designs. FY 2013 OCO Plans: N/A Title: MOP System Test and Evaluation 1.600 7.000 7.263 7.263 **Description:** Qualification Testing: MOP system qualification testing to allow weapon certification onto the B-2A. System Test and Evaluation: Conduct ground and flight tests of the MOP weapon system in order to demonstrate weapon effectiveness and suitability. FY 2011 Accomplishments: Complete multiple live and inert flight tests. Analyze data and evaluate the demonstrated weapon capability against the performance specification. FY 2012 Plans: Conduct qualification, ground and flight tests to verify design modifications. FY 2013 Base Plans:

PE 0604327F: Hardened Target Munitions

Air Force

UNCLASSIFIED Page 2 of 7

R-1 Line #45

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 0604327F: Hardened Target Munitions

BA 4: Advanced Component Development & Prototypes (ACD&P)

C. Accomplishments/Planned Programs (\$ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total
Conduct ground and flight tests to verify design mods.					
FY 2013 OCO Plans: N/A					
Title: MOP Flight Test Assets Fabrication	0.400	5.585	-	-	-
<b>Description:</b> Flight Test Asset Fabrication and target construction. Fabricate all hardware (weapons, loading adapters, and carriage equipment) and targets needed to execute flight testing.					
FY 2011 Accomplishments: Build and instrument test targets.					
FY 2012 Plans: Build flight test weapons.					
FY 2013 Base Plans: N/A					
FY 2013 OCO Plans: N/A					
Title: Program Office Support	1.275	1.500	1.500	-	1.500
<b>Description:</b> Support weapon development activities such as design reviews and ground/flight test planning and execution.					
FY 2011 Accomplishments:  Execute MOP flight test program and provide weapon performance capability to the user.					
FY 2012 Plans: Support weapon development and test activities.					
FY 2013 Base Plans: Support weapon development and test activities.					
FY 2013 OCO Plans: N/A					
Title: Hard and Deeply Buried Target (HDBT) Capability Analysis	-	10.300	-	-	-

PE 0604327F: Hardened Target Munitions

Air Force Page 3 of 7

Exhibit R-2, RDT&E Budget Item Justification: PB 2013 Air Force

DAIL.

**DATE:** February 2012

APPROPRIATION/BUDGET ACTIVITY

R-1 ITEM NOMENCLATURE

3600: Research, Development, Test & Evaluation, Air Force

PE 0604327F: Hardened Target Munitions

BA 4: Advanced Component Development & Prototypes (ACD&P)

C. Accomplishments/Planned Programs (\$ in Millions)			FY 2013	FY 2013	FY 2013
	FY 2011	FY 2012	Base	oco	Total
<b>Description:</b> Evaluation of alternative hard target weapons to assess the performance, operational effectiveness, operational suitability, and estimated system procurement costs based on findings in the the HDBT Initial Cababilities Document (ICD), dated September 2005.					
FY 2011 Accomplishments: N/A					
FY 2012 Plans: Evaluation of alternative hard target weapons to assess the performance, operational effectiveness, operational suitability, and estimated system procurement costs based on findings in the HDBT Initial Cababilities Document (ICD), dated September 2005.					
FY 2013 Base Plans: N/A					
FY 2013 OCO Plans: N/A					
Accomplishments/Planned Programs Subtotals	22.275	33.248	16.711	-	16.711

## D. Other Program Funding Summary (\$ in Millions)

_	-	-	FY 2013	FY 2013	FY 2013					<b>Cost To</b>	
<u>Line Item</u>	FY 2011	FY 2012	<b>Base</b>	000	<u>Total</u>	FY 2014	FY 2015	FY 2016	FY 2017	<b>Complete</b>	<b>Total Cost</b>
<ul> <li>PE 0101127F, B-2 Advanced</li> </ul>	2.480	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	2.480
Techno: MOP Integration											
<ul> <li>PE 0101127F, B-2 Squadrons</li> </ul>	7.764	7.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	14.764
(APAF): MOP Integration											
• PE 028030F, WRM- Ammunition	0.000	0.000	4.158	0.000	4.158	0.000	0.000	0.000	0.000	0.000	4.158
<u></u>											I

(PAAF): MOP upgrade

# E. Acquisition Strategy

MOP is a Quick reaction capability with a sole source cost plus incentive fee contract to a single contractor.

PE 0604327F: *Hardened Target Munitions*Air Force

UNCLASSIFIED
Page 4 of 7

R-1 Line #45

Exhibit R-2, RDT&E Budget Item Justification: PB 2013 Air Force		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 3600: Research, Development, Test & Evaluation, Air Force BA 4: Advanced Component Development & Prototypes (ACD&P)	R-1 ITEM NOMENCLATURE PE 0604327F: Hardened Target Munitions	
F. Performance Metrics  Please refer to the Performance Base Budget Overview Book for interpretable Force performance goals and most importantly, how they contribute		nd how those resources are contributing to Air

PE 0604327F: *Hardened Target Munitions* Air Force

Exhibit R-4, RDT&E Schedule Profile: PB 2013 Air Force		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 3600: Research, Development, Test & Evaluation, Air Force	<b>R-1 ITEM NOMENCLATURE</b> PE 0604327F: Hardened Target Munitions	PROJECT 645341: Direct Strike Penetrator Systems
BA 4: Advanced Component Development & Prototypes (ACD&P)	PE 0004321F. Hardened Target Munitions	045341. Direct Strike Perietrator Systems

PE 0604327F: *Hardened Target Munitions* Air Force

UNCLASSIFIED
Page 6 of 7

**DATE:** February 2012 Exhibit R-4A, RDT&E Schedule Details: PB 2013 Air Force APPROPRIATION/BUDGET ACTIVITY R-1 ITEM NOMENCLATURE PROJECT

3600: Research, Development, Test & Evaluation, Air Force PE 0604327F: Hardened Target Munitions

645341: Direct Strike Penetrator Systems BA 4: Advanced Component Development & Prototypes (ACD&P)

## Schedule Details

	St	art	End		
Events	Quarter	Year	Quarter	Year	
Continue Design Modification & Qualification Testing	1	2011	1	2013	
Continue Fuze & Ground Testing	1	2011	4	2013	
Test Article Fabrication	1	2011	4	2012	
Continue Flight Test	1	2011	4	2013	

PE 0604327F: Hardened Target Munitions

Air Force