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Exhibit R-2, RDT&E Budget Item Justification: PB 2016 Air Force **Date:** February 2015

Appropriation/Budget Activity					R-1 Program Element (Number/Name)							
3600: Research, Development, Test & Evaluation, Air Force I BA 4: Advanced Component Development & Prototypes (ACD&P)					PE 0604635F I Ground Attack Weapons Fuze Development							
COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
Total Program Element	-	17.271	-	-	-	-	-	-	-	-	-	17.271
645312: Hard Target Void Sensing Fuze	-	17.271	-	-	-	-	-	-	-	-	-	17.271
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note

In FY 2015, 645312, Hard Target Void Sensing Fuze, efforts were transferred to PE 0605214F, Ground Attack Weapons Fuze Development, 655313, Hard Target Void Sensing Fuze, in order to properly align the funds in the correct Budget Activity, BA05, which supports Engineering, Manufacturing, and Development (EMD).

A. Mission Description and Budget Item Justification

The Hard Target Void Sensing Fuze (HTVSF) is an advanced system designed to provide fuzing and void sensing functions for legacy penetrator weapons to destroy hardened targets protected by multiple layers of soil and/or reinforced concrete. The HTVSF will also provide in-flight cockpit programmability, safing and arming, multi-function (time delay and void sensing) and multi-delay arming. Program Element funding currently supports the Engineering, Manufacturing, and Development (EMD) effort for HTVSF. The program was created to include the whole spectrum of fuze development.

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

B. Program Change Summary (\$ in Millions)	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Previous President's Budget	17.764	-	-	-	-
Current President's Budget	17.271	-	-	-	-
Total Adjustments	-0.493	-	-	-	-
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-0.493	-			
• Other Adjustments	-	-	-	-	-

Change Summary Explanation

None

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C. Accomplishments/Planned Programs (\$ in Millions)		FY 2014	FY 2015	FY 2016
Title: HTVSF Development Description: Conducted HTVSF Engineering, Manufacturing, and Development (EMD) effort. FY 2014 Accomplishments: Continued EMD program effort to develop a joint use Air Force/Navy item to interface with legacy penetrator weapons to provide a capability to survive a 5K - 15K psi penetration environment and detonate in a specific void inside the target or at a specific delay time programmed into the fuze. FY 2015 Plans: N/A FY 2016 Plans: N/A		6.930	-	-
Title: Test Support Description: Build "hard" targets and execute sled/flight test range events. FY 2014 Accomplishments: Conducted HTVSF BLU 109/113 sled and flight developmental test program to include AFOTEC clearance, range support/development, weapon recovery and target demolition. FY 2015 Plans: N/A FY 2016 Plans: N/A		5.885	-	-
Title: External Support Description: Provide specialized expertise in manufacturing, testing and safety support for the HTVSF EMD program. Contracted for munitions-specific expertise to ensure testing can be meaningfully evaluated. FY 2014 Accomplishments: Provided expertise in manufacturing, testing, management and analysis support, and safety support for BLU 109/113 flight developmental testing. FY 2015 Plans:		4.456	-	-

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C. Accomplishments/Planned Programs (\$ in Millions)										FY 2014	FY 2015	FY 2016
N/A												
FY 2016 Plans: N/A												
Accomplishments/Planned Programs Subtotals										17.271	-	-
D. Other Program Funding Summary (\$ in Millions)												
Line Item	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost	
• RDTE: BA05: PE 0605214F: <i>Ground Attack Weapons Fuze Development</i>	-	5.332	3.589	-	3.589	0.946	-	-	-	-	9.876	
• PAAF: BA01: Line Item # 356120: <i>Fuzes</i>	-	13.280	31.451	-	31.451	25.013	28.013	-	-	-	-	
Remarks												
- PAAF dollars in War Reserve Materiel (WRM; Fuzes) fund initial procurement of 400/474/1574/2552 units. FY15 - FY18. Low-Rate Initial Production delayed due to extension of Engineering and Development (EMD) effort. Total quantity of fuzes is 5000 for USAF												
- Navy PE 050120 to fund 50/225/225 units FY2016/FY2017/FY2018.												
E. Acquisition Strategy												
EMD contract awarded to Alliant TechSystems Operations LLC with an estimated contract completion date of 31 Mar 2015. Contract is fixed price incentive firm with an estimated contract length of 48 months.												
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 2016 Air Force												Date: February 2015			
Appropriation/Budget Activity 3600 / 4						R-1 Program Element (Number/Name) PE 0604635F / <i>Ground Attack Weapons Fuze Development</i>				Project (Number/Name) 645312 / <i>Hard Target Void Sensing Fuze</i>					

Product Development (\$ in Millions)				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total				
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost To Complete	Total Cost	Target Value of Contract
HTVSF EMD	C/FPIF	Alliant Techsystems Operations Inc. : Plymouth, MN	-	6.930	Oct 2013	-		-		-		-		-	6.930	TBD
Subtotal			-	6.930		-		-		-		-		-	6.930	-

Support (\$ in Millions)				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total				
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost To Complete	Total Cost	Target Value of Contract
External Support	SS/CPAF	Raytheon, Boeing, SEEK EAGLE, AFOTEC : Various,	-	3.858	Jan 2014	-		-		-		-		-	3.858	-
Subtotal			-	3.858		-		-		-		-		-	3.858	-

Remarks
Raytheon - Tucson AZ; Boeing - St. Louis MO; SEEK EAGLE - Eglin AFB, FL; AFOTEC - Eglin AFB, FL

Test and Evaluation (\$ in Millions)				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total				
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost To Complete	Total Cost	Target Value of Contract
Target build and sled/flight test	Various	Eglin AFB (96 TW) / Holloman AFB / White Sands Missile Range : Various,	-	5.885	Jan 2014	-		-		-		-		Continuing	Continuing	-
Subtotal			-	5.885		-		-		-		-		-	-	-

Remarks
Eglin AFB, Fort Walton Beach FL: Holloman AFB, Alamogordo NM; White Sands Missile Range, Las Cruces NM

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Management Services (\$ in Millions)				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Management Administration (PMA)/ Analysis support	Various	AFLCMC/EBDZ : Eglin AFB, FL	-	0.598		-		-		-		-	-	0.598	-
Subtotal			-	0.598		-		-		-		-	-	0.598	-

	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	-	17.271	-	-	-	-	-	-	-

Remarks

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Exhibit R-4, RDT&E Schedule Profile: PB 2016 Air Force																Date: February 2015			
Appropriation/Budget Activity 3600 / 4								R-1 Program Element (Number/Name) PE 0604635F / <i>Ground Attack Weapons Fuze Development</i>								Project (Number/Name) 645312 / <i>Hard Target Void Sensing Fuze</i>			

	FY 2014				FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Engineering, Manufacturing, and Development (EMD) Design FA8681-11-C-0039 25 Mar 2011-31Mar 2015																												
Procure Flight Targets																												
Soil Box Flight Test																												
GBU-28 Sled Test																												
BLU-113 Flight Test DT																												
Milestone C																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2016 Air Force			Date: February 2015
Appropriation/Budget Activity 3600 / 4	R-1 Program Element (Number/Name) PE 0604635F / <i>Ground Attack Weapons</i> <i>Fuze Development</i>	Project (Number/Name) 645312 / <i>Hard Target Void Sensing Fuze</i>	

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
Engineering, Manufacturing, and Development (EMD) Design FA8681-11-C-0039 25 Mar 2011-31Mar 2015	1	2014	2	2015
Procure Flight Targets	1	2014	2	2015
Soil Box Flight Test	4	2014	4	2014
GBU-28 Sled Test	2	2015	2	2015
BLU-113 Flight Test DT	2	2015	2	2015
Milestone C	2	2015	2	2015