

# UNCLASSIFIED

Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force										DATE: April 2013		
APPROPRIATION/BUDGET ACTIVITY 3600: Research, Development, Test & Evaluation, Air Force BA 4: Advanced Component Development & Prototypes (ACD&P)					R-1 ITEM NOMENCLATURE PE 0604635F: Ground Attack Weapons Fuze Development							
COST (\$ in Millions)	All Prior Years	FY 2012	FY 2013 <sup>#</sup>	FY 2014 Base	FY 2014 OCO <sup>##</sup>	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
Total Program Element	-	23.729	9.423	21.175	-	21.175	7.808	2.218	0.000	0.000	Continuing	Continuing
645312: Hard Target Void Sensing Fuze	-	23.729	9.423	21.175	-	21.175	7.808	2.218	0.000	0.000	Continuing	Continuing
Quantity of RDT&E Articles		0	0	0		0	0	0	0	0		
<sup>#</sup> FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012												
<sup>##</sup> The FY 2014 OCO Request will be submitted at a later date												
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. This Program Element 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 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total				
Previous President's Budget				24.467	9.423	26.721	-	26.721				
Current President's Budget				23.729	9.423	21.175	-	21.175				
Total Adjustments				-0.738	0.000	-5.546	-	-5.546				
• Congressional General Reductions				-	0.000							
• Congressional Directed Reductions				-	0.000							
• Congressional Rescissions				0.000	0.000							
• Congressional Adds				-	0.000							
• Congressional Directed Transfers				-	0.000							
• Reprogrammings				0.000	0.000							
• SBIR/STTR Transfer				-0.738	0.000							
• Other Adjustments				0.000	0.000	-5.546	-	-5.546				
Change Summary Explanation												
Base FY 2014, Base BY1 Other Adjustment Row: -\$5.546M, higher AF priorities												

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<b>C. Accomplishments/Planned Programs (\$ in Millions)</b>		<b>FY 2012</b>	<b>FY 2013</b>	<b>FY 2014</b>
<b>Title:</b> Engineering, Manufacturing, and Development Contract  <b>Description:</b> Conduct HTVSF EMD effort.  <b>FY 2012 Accomplishments:</b> 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.  <b>FY 2013 Plans:</b> Continue 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.  <b>FY 2014 Plans:</b> Continue 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.		10.748	3.899	6.839
<b>Title:</b> Management Analysis and Program Management Administration (PMA) Support  <b>Description:</b> Management/Analysis support: Ensure requirements are implemented.  <b>FY 2012 Accomplishments:</b> Continued Management and Analysis Support for EMD program with emphasis on delta CDR.  <b>FY 2013 Plans:</b> Continue management and analysis support for the HTVSF EMD program.  <b>FY 2014 Plans:</b> N/A		1.189	1.278	0.000
<b>Title:</b> Test Support  <b>Description:</b> Build "hard" targets and execute sled/flight test range events.  <b>FY 2012 Accomplishments:</b>		10.197	3.126	11.446

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<b>C. Accomplishments/Planned Programs (\$ in Millions)</b>										<b>FY 2012</b>	<b>FY 2013</b>	<b>FY 2014</b>
Provided for acquisition of targets (lead-time articles) for sled and flight testing for HTVSF EMD program. Included building hard targets for sled/flight test events and support for the actual test events.  <b>FY 2013 Plans:</b> Conduct Sled, Flight and Integration tests at Government facilities. These facilities include, but are not limited to, Eglin Air Force Base, Holloman Air Force Base, White Sands Missile Range, and Naval Weapons Station China Lake.  <b>FY 2014 Plans:</b> HTVSF BLU 109/113 sled and flight developmental test program to include AFOTEC clearance, range support/development, weapon recovery and target demolition.												
<b>Title:</b> External Support  <b>Description:</b> 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.  <b>FY 2012 Accomplishments:</b> Provided 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.  <b>FY 2013 Plans:</b> Provide specialized expertise in manufacturing, testing and safety support for the HTVSF EMD program.  <b>FY 2014 Plans:</b> Provide expertise in manufacturing, testing, management and analysis support, and safety support for BLU 109/113 flight developmental testing.										1.595	1.120	2.890
<b>Accomplishments/Planned Programs Subtotals</b>										23.729	9.423	21.175
<b>D. Other Program Funding Summary (\$ in Millions)</b>												
<u>Line Item</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u> <u>Base</u>	<u>FY 2014</u> <u>OCO</u>	<u>FY 2014</u> <u>Total</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>	
• PAAF: BA01: Line Item # 356120: <i>Fuzes</i>	0.000	0.130	19.280		19.280	38.500	39.512	41.616	41.616	Continuing	Continuing	
<b>Remarks</b> - PAAF dollars in WRM fund initial procurement of 225/225/1250/1650/1650 units FY 2014/FY 2015/FY 2016/FY 2017/FY 2018.												

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<b>D. Other Program Funding Summary (\$ in Millions)</b>											
<u>Line Item</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u> <u>Base</u>	<u>FY 2014</u> <u>OCO</u>	<u>FY 2014</u> <u>Total</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
- Navy PE 050120 to fund 50/225/225 units FY 2014/FY 2015/FY 2016.											
<b>E. Acquisition Strategy</b>											
EMD Awarded to Alliant TechSystems Operations LLC											
Fixed Price Incentive Firm											
Estimated Contract Length - 37 months											
<b>F. Performance Metrics</b>											
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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<b>Exhibit R-3, RDT&amp;E Project Cost Analysis:</b> PB 2014 Air Force													<b>DATE:</b> April 2013		
<b>APPROPRIATION/BUDGET ACTIVITY</b> 3600: Research, Development, Test & Evaluation, Air Force BA 4: Advanced Component Development & Prototypes (ACD&P)							<b>R-1 ITEM NOMENCLATURE</b> PE 0604635F: Ground Attack Weapons Fuze Development				<b>PROJECT</b> 645312: Hard Target Void Sensing Fuze				

Product Development (\$ in Millions)				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total				
Cost Category Item	Contract Method & Type	Performing Activity & Location	All 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	-	10.748	Jan 2012	3.899	Mar 2013	6.839	Oct 2013	-		6.839		0.000	21.486	TBD
<b>Subtotal</b>			0.000	10.748		3.899		6.839		0.000		6.839		0.000	21.486	

Support (\$ in Millions)				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total				
Cost Category Item	Contract Method & Type	Performing Activity & Location	All 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,	-	1.595	Jan 2012	1.120	Jan 2013	2.890	Jan 2014	-		2.890		0.000	5.605	
<b>Subtotal</b>			0.000	1.595		1.120		2.890		0.000		2.890		0.000	5.605	

<b>Remarks</b> Raytheon - Tucson AZ; Boeing - St. Louis MO; SEEK EAGLE - Eglin AFB, FL; AFOTEC - Eglin AFB, FL																
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Test and Evaluation (\$ in Millions)				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total				
Cost Category Item	Contract Method & Type	Performing Activity & Location	All 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,	-	10.197	Feb 2012	3.126	Feb 2013	11.446	Jan 2014	-		11.446		Continuing	Continuing	
<b>Subtotal</b>			0.000	10.197		3.126		11.446		0.000		11.446				

<b>Remarks</b> 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 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All 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	-	1.189	Jan 2012	1.278	Feb 2013	0.000		-		0.000	0.000	2.467	
<b>Subtotal</b>			0.000	1.189		1.278		0.000		0.000		0.000	0.000	2.467	

			All Prior Years	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract
<b>Project Cost Totals</b>			0.000	23.729	9.423	21.175	0.000	21.175			

**Remarks**

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Exhibit R-4, RDT&E Schedule Profile: PB 2014 Air Force

DATE: April 2013

**APPROPRIATION/BUDGET ACTIVITY**

3600: Research, Development, Test & Evaluation, Air Force  
BA 4: Advanced Component Development & Prototypes (ACD&P)

**R-1 ITEM NOMENCLATURE**

PE 0604635F: Ground Attack Weapons  
Fuze Development

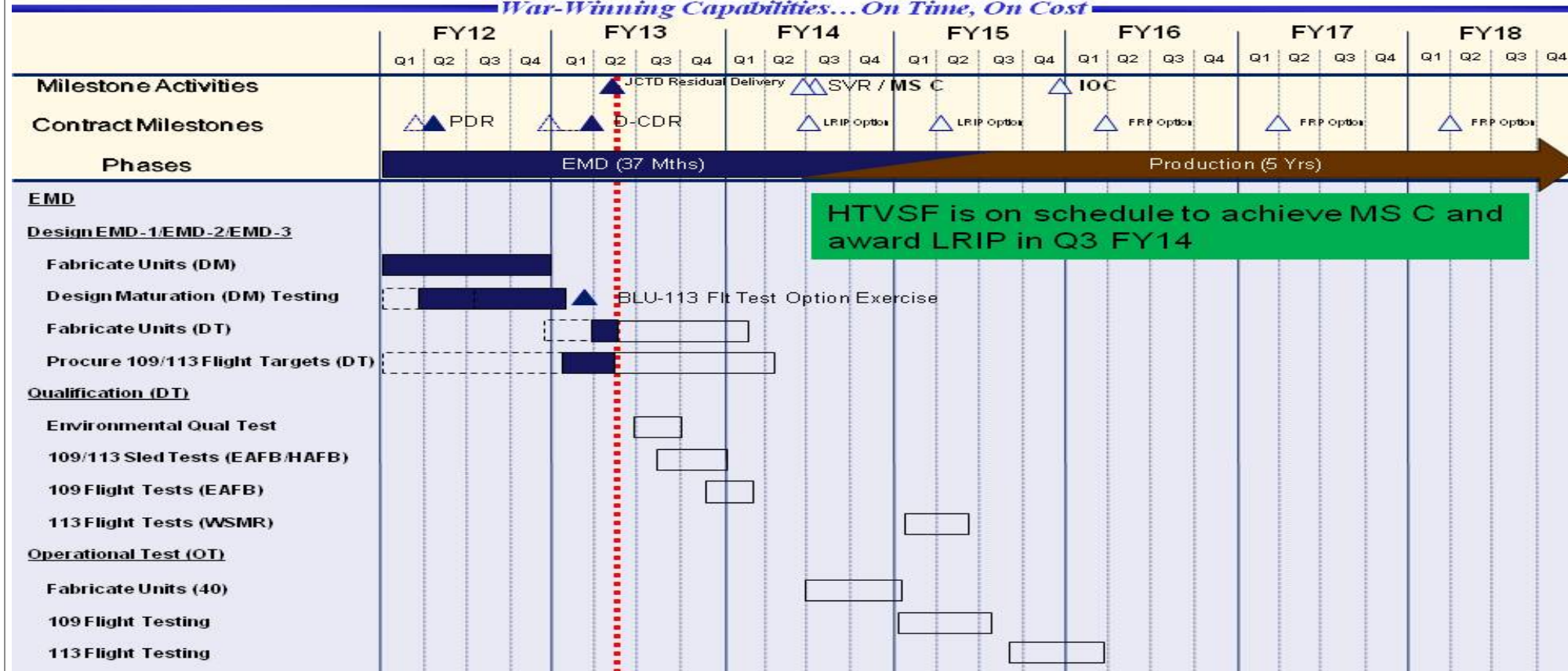
**PROJECT**

645312: Hard Target Void Sensing Fuze



# Schedule

*War-Winning Capabilities... On Time, On Cost*



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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2014 Air Force			<b>DATE:</b> April 2013
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Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
Engineering, Manufacturing, and Development (EMD) Design FA8681-11-C-0039 25 Mar 2011-25 Apr 2014	1	2012	3	2015
Procure Flight Targets	1	2013	2	2014
Delta Critical Design Review (CDR)	1	2013	1	2013
BLU-109 Flight Test DT	4	2013	1	2014
Milestone C/LRIP Award	3	2014	3	2014
BLU-113 Flight Test DT	1	2015	2	2015