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<b>Exhibit R-2, RDT&amp;E Budget Item Justification:</b> PB 2013 Air Force	<b>DATE:</b> February 2012
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<b>APPROPRIATION/BUDGET ACTIVITY</b>				<b>R-1 ITEM NOMENCLATURE</b>							
3600: <i>Research, Development, Test &amp; Evaluation, Air Force</i> BA 4: <i>Advanced Component Development &amp; Prototypes (ACD&amp;P)</i>				PE 0604635F: <i>Ground Attack Weapons Fuze Development</i>							
<b>COST (\$ in Millions)</b>	<b>FY 2011</b>	<b>FY 2012</b>	<b>FY 2013 Base</b>	<b>FY 2013 OCO</b>	<b>FY 2013 Total</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>	<b>FY 2017</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
Total Program Element	22.398	24.467	9.423	-	9.423	26.721	4.480	-	-	Continuing	Continuing
645312: <i>Hard Target Void Sensing Fuze</i>	22.398	24.467	9.423	-	9.423	26.721	4.480	-	-	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		

**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 a weapon to penetrate and destroy hardened targets protected by multiple layers of soil and/or reinforced concrete. The HTVS Fuze shall also provide in-flight cockpit programmability, safing and arming, multi-function (time delay and void sensing) and multi-delay arming. FY 2012 and FY 2013 funding includes follow-on risk reduction and Engineering, Manufacturing, and Development (EMD) efforts to the the Hard Target Void Sensing Fuze (HTVSF) Joint Capability Technology Demonstration (JCTD) previously funded in PE 0604602F, Armament Ordnance Development for Research, Development, Test & Engineering (RDT&E). This Program Element was created to include the whole spectrum of fuze development and is positioned 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.

Procurement of the HTVSF is funded in PE 0208030F, WRM Ammunition, in Procurement of Ammunition, Air Force (PAAF).

<b><u>B. Program Change Summary (\$ in Millions)</u></b>	<b><u>FY 2011</u></b>	<b><u>FY 2012</u></b>	<b><u>FY 2013 Base</u></b>	<b><u>FY 2013 OCO</u></b>	<b><u>FY 2013 Total</u></b>
Previous President's Budget	32.513	24.467	5.185	-	5.185
Current President's Budget	22.398	24.467	9.423	-	9.423
Total Adjustments	-10.115	-	4.238	-	4.238
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Other Adjustments	-10.115	-	4.238	-	4.238

**Change Summary Explanation**

FY11: Adjustments include Congressional General Reductions -\$0.115, Cong Directed Reductions -\$10.0

FY13: Adjustment (\$4.238M) to support total program requirement

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<b>APPROPRIATION/BUDGET ACTIVITY</b> 3600: <i>Research, Development, Test &amp; Evaluation, Air Force</i> BA 4: <i>Advanced Component Development &amp; Prototypes (ACD&amp;P)</i>		<b>R-1 ITEM NOMENCLATURE</b> PE 0604635F: <i>Ground Attack Weapons Fuze Development</i>		
<b>C. Accomplishments/Planned Programs (\$ in Millions)</b>		<b>FY 2011</b>	<b>FY 2012</b>	<b>FY 2013</b>
<b>Title:</b> Engineering and Manufacturing Development Contract  <b>Description:</b> Conduct HTVSF EMD effort.  <b>FY 2011 Accomplishments:</b> Conducted HTVSF EMD 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. Effort included acquisition of test hardware and test and evaluation efforts.  <b>FY 2012 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 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.		14.888	21.405	3.838
<b>Title:</b> Mgmt Analysis and Support  <b>Description:</b> Management/analysis support: including Critical Design Reviews (CDRs) required to ensure all additional post JCTD requirements are implemented  <b>FY 2011 Accomplishments:</b> Main effort was the delta CDR to ensure all additional post-JCTD requirements were implemented.  <b>FY 2012 Plans:</b> Continued management and analysis support for the HTVSF EMD program with emphasis on 4th Qtr delta CDR  <b>FY 2013 Plans:</b> Continued management and analysis support for the HTVSF EMD program		1.443	1.155	1.000
<b>Title:</b> Test Support  <b>Description:</b> Test: build "hard" targets/prep for sled/flight test range events  <b>FY 2011 Accomplishments:</b>		2.354	1.000	3.452

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<b>C. Accomplishments/Planned Programs (\$ in Millions)</b>		<b>FY 2011</b>	<b>FY 2012</b>	<b>FY 2013</b>
Built/acquired hard targets/prep for sled/flight test events in support of EMD.				
<b>FY 2012 Plans:</b> Government support of sled and flight testing for HTVSF EMD program to include build and prep of hard targets for sled/flight test events and support for the actual test events.				
<b>FY 2013 Plans:</b> Government support of sled and flight testing for HTVSF EMD program to include build and prep of hard targets for sled/flight test events and support for the actual test events.				
<b>Title:</b> External Support <b>Description:</b> Provide Subject Matter Experts to support EMD efforts.		0.905	0.907	0.526
<b>FY 2011 Accomplishments:</b> Provided specialized expertise in manufacturing, testing and safety support for the HTVSF EMD program.				
<b>FY 2012 Plans:</b> Provide specialized expertise in manufacturing, testing and safety support for the HTVSF EMD program.				
<b>FY 2013 Plans:</b> Provide specialized expertise in manufacturing, testing and safety support for the HTVSF EMD program.				
<b>Title:</b> Government-Furnished Equipment/Government-Furnished Parts (GFE/GFP) Items <b>Description:</b> Ensure required government furnished equipment is available for the EMD program to include items such as bomb bodies/warheads, tailkits, and telemetry sets.		2.808	-	0.607
<b>FY 2011 Accomplishments:</b> Provided government furnished items such as bomb bodies/warheads, tailkits and telemetry sets to support HTVSF EMD contract efforts and testing listed to support all contract and testing efforts.				
<b>FY 2012 Plans:</b> N/A				
<b>FY 2013 Plans:</b> Provide government furnished items such as bomb bodies/warheads, tailkits and telemetry sets to support HTVSF EMD contract efforts and testing listed to support all contract and testing efforts.				
<b>Accomplishments/Planned Programs Subtotals</b>		22.398	24.467	9.423

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<b><u>D. Other Program Funding Summary (\$ in Millions)</u></b>											
<u>Line Item</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u> <u>Base</u>	<u>FY 2013</u> <u>OCO</u>	<u>FY 2013</u> <u>Total</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
• PAAF, PE 0208030F, WRM <i>Ammunition: HTVSF Procurement</i>	0.000	0.000	0.130	0.000	0.130	19.280	38.500	39.510	41.700	Continuing	Continuing
<b><u>E. Acquisition Strategy</u></b> EMD Awarded to Alliant TechSystems Operations LLC Fixed Price Incentive Fee Estimated Contract Length - 37 months After contract award: 18 month Delta CDRs start Sep 12											
<b><u>F. Performance Metrics</u></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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Exhibit R-4, RDT&E Schedule Profile: PB 2013 Air Force		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY	R-1 ITEM NOMENCLATURE	PROJECT
3600: Research, Development, Test & Evaluation, Air Force BA 4: Advanced Component Development & Prototypes (ACD&P)	PE 0604635F: Ground Attack Weapons Fuze Development	645312: Hard Target Void Sensing Fuze

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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2013 Air Force			<b>DATE:</b> February 2012
<b>APPROPRIATION/BUDGET ACTIVITY</b> 3600: <i>Research, Development, Test &amp; Evaluation, Air Force</i> BA 4: <i>Advanced Component Development &amp; Prototypes (ACD&amp;P)</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 0604635F: <i>Ground Attack Weapons Fuze Development</i>	<b>PROJECT</b> 645312: <i>Hard Target Void Sensing Fuze</i>	

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
Milestone B/EMD Award	2	2011	2	2011
Procure Flight Targets	1	2014	1	2015
Delta CDR	4	2012	4	2012
BLU-109 Flight Test	4	2013	2	2014
Milestone C/LRIP Award	3	2014	3	2014