

UNCLASSIFIED

Exhibit R-2, RDT&E Budget Item Justification: PB 2015 Air Force										Date: March 2014		
Appropriation/Budget Activity 3600: Research, Development, Test & Evaluation, Air Force I BA 3: Advanced Technology Development (ATD)					R-1 Program Element (Number/Name) PE 0603601F I Conventional Weapons Technology							
COST (\$ in Millions)	Prior Years	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO #	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost
Total Program Element	-	32.518	33.996	42.046	-	42.046	50.047	48.077	55.459	58.411	Continuing	Continuing
63670A: Conventional Weapons Development	-	32.518	33.996	42.046	-	42.046	50.047	48.077	55.459	58.411	Continuing	Continuing
# The FY 2015 OCO Request will be submitted at a later date.												
A. Mission Description and Budget Item Justification												
This program develops, demonstrates, and integrates advanced ordnance and guidance technologies for air-launched conventional weapons. The program focuses on conventional ordnance component technologies such as warheads, fuzes, and explosives, as well as munition guidance component technologies such as navigation and control systems and seekers. Technologies to be developed, demonstrated, and integrated address blast, fragmentation, penetration, low-collateral damage, variable depth/location fuzing, precise guidance, and high performance and insensitive explosives. Efforts in this program have been coordinated through the Department of Defense (DoD) Science and Technology (S&T) Executive Committee process to harmonize efforts and eliminate duplication. This program is in Budget Activity 3, Advanced Technology Development, since it develops and demonstrates technologies for existing system upgrades and/or new system developments that have military utility and address warfighter needs.												
B. Program Change Summary (\$ in Millions)				FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO	FY 2015 Total				
Previous President's Budget				36.352	33.996	43.589	-	43.589				
Current President's Budget				32.518	33.996	42.046	-	42.046				
Total Adjustments				-3.834	-	-1.543	-	-1.543				
• Congressional General Reductions				-0.048	-							
• Congressional Directed Reductions				-	-							
• Congressional Rescissions				-	-							
• Congressional Adds				-	-							
• Congressional Directed Transfers				-	-							
• Reprogrammings				-	-							
• SBIR/STTR Transfer				-0.780	-							
• Other Adjustments				-3.006	-	-1.543	-	-1.543				
Change Summary Explanation												
Decrease in FY13 Other Adjustments was due to Sequestration.												
Decrease in FY 2015 is due to higher DoD priorities.												
C. Accomplishments/Planned Programs (\$ in Millions)									FY 2013	FY 2014	FY 2015	
Title: Ordnance Technologies									16.008	6.500	8.000	

UNCLASSIFIED

Exhibit R-2, RDT&E Budget Item Justification: PB 2015 Air Force		Date: March 2014		
Appropriation/Budget Activity 3600: <i>Research, Development, Test & Evaluation, Air Force I</i> BA 3: <i>Advanced Technology Development (ATD)</i>		R-1 Program Element (Number/Name) PE 0603601F <i>I Conventional Weapons Technology</i>		
C. Accomplishments/Planned Programs (\$ in Millions)		FY 2013	FY 2014	FY 2015
Description: Develop and demonstrate ordnance technologies to improve conventional, air-delivered munitions. Specific technical areas of focus include fuzes, energetic materials, and warheads. FY 2013 Accomplishments: Developed technologies for a conventional ordnance package capable of penetrating high performance concrete at velocities up to 2,500 feet per second. Developed and demonstrated technologies to incorporate velocity augmentation for penetrating weapons. Continued developing an ordnance package that enables the warfighter to tailor the weapon effects for the target and its surrounding environment. Investigated alternate fuzing concepts to increase the reliability of penetrating weapons. FY 2014 Plans: Complete demonstrations of a conventional ordnance package capable of penetrating high performance concrete at velocities up to 2,500 feet per second. Complete demonstration of technologies that incorporate velocity augmentation capability for penetrating weapons. Continue developing an ordnance package that enables the warfighter to tailor the weapon effects for the target and its surrounding environment. Develop alternate fuze technologies to increase the reliability of penetrating weapons. FY 2015 Plans: Demonstrate alternate fuzing technologies to increase the reliability of penetrating weapons. Develop and assess ordnance technologies that enable high-speed strike weapon concepts through use of reactive composite cases, dual use of propulsion fuels, and focused fragmentation. Complete the development of an ordnance package that enables the warfighter to tailor the weapon effects for the target and its surrounding environment.				
Title: Guidance Technologies Description: Develop and demonstrate guidance technologies to improve the precision, controlled lethality, and flexibility of conventional, air-delivered munitions. Specific technical areas include precision navigation and terminal seekers. FY 2013 Accomplishments: Continued to develop technology for precision weapon navigation in GPS-degraded environments. Developed technologies capable of guiding a high-speed strike weapon characterized by very high terminal speed and high end-game maneuverability. FY 2014 Plans: Demonstrate simulations of weapon navigation and control necessary for penetration into hard targets at high velocities. Demonstrate technologies for precision weapon navigation in GPS-degraded environments. Continue to develop technologies capable of guiding a high-speed strike weapon characterized by very high terminal speed and high end-game maneuverability. FY 2015 Plans:		7.005	11.700	7.000

UNCLASSIFIED

Exhibit R-2, RDT&E Budget Item Justification: PB 2015 Air Force		Date: March 2014		
Appropriation/Budget Activity 3600: <i>Research, Development, Test & Evaluation, Air Force I BA 3: Advanced Technology Development (ATD)</i>		R-1 Program Element (Number/Name) PE 0603601F <i>I Conventional Weapons Technology</i>		
C. Accomplishments/Planned Programs (\$ in Millions)		FY 2013	FY 2014	FY 2015
Continue to develop and assess technologies capable of guiding a high-speed strike weapon characterized by very high terminal speed and high end-game maneuverability.				
Title: Advanced Munition Concept Technologies		9.505	15.796	27.046
Description: Demonstrate advanced conventional munition concepts. These innovative concepts integrate ordnance, guidance, and carriage and release technologies to demonstrate warfighter capability.				
FY 2013 Accomplishments: Completed the development of missile technologies to defeat a broad range of small and highly agile air targets, as well as high value ground targets, such as enemy air defenses. Continued to refine employment concepts and system technologies for high-speed penetrating weapons with velocity augmentation. Continued the development of a munition concept to incorporate technologies for carriage and terminal impact at high speed. Increased emphasis on munition concepts that increase the capacity and capability of fifth-generation aircraft.				
FY 2014 Plans: Complete demonstration of technologies for high-speed penetrating weapons with velocity augmentation. Investigate concepts for cooperative control of small weapons to produce scalable effects to increase the capacity and capability of fifth-generation aircraft. Develop and demonstrate ordnance and guidance technologies for tactically relevant long range strike weapons and reduce risk for a potential follow-on acquisition program.				
FY 2015 Plans: Conduct relevant long range strike weapon technology demonstration to reduce risk for a potential follow-on acquisition program. Continue the development of a munition concept to incorporate technologies for carriage and terminal impact at high-speed. Continue investigating concepts for cooperative control of small weapons to produce scalable effects to increase the capacity and capability of fifth-generation aircraft. Demonstrate the ability to articulate the trades and synergies of kinetic energy and directed energy weapons by incorporating higher fidelity methodologies into systems level analysis, including the joint weapons effectiveness analyses. Demonstrate weapon integration concept for air target engagement.				
Accomplishments/Planned Programs Subtotals		32.518	33.996	42.046
D. Other Program Funding Summary (\$ in Millions) N/A				
Remarks				
E. Acquisition Strategy N/A				

UNCLASSIFIED

Exhibit R-2, RDT&E Budget Item Justification: PB 2015 Air Force		Date: March 2014
Appropriation/Budget Activity 3600: <i>Research, Development, Test & Evaluation, Air Force I</i> BA 3: <i>Advanced Technology Development (ATD)</i>	R-1 Program Element (Number/Name) PE 0603601F <i>I Conventional Weapons Technology</i>	

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.