

UNCLASSIFIED

| | |
|--|----------------------------|
| Exhibit R-2, RDT&E Budget Item Justification: PB 2012 Air Force | DATE: February 2011 |
|--|----------------------------|

| APPROPRIATION/BUDGET ACTIVITY | | | | R-1 ITEM NOMENCLATURE | | | | | | | |
|--|---------|---------|--------------|---|---------------|---------|---------|---------|---------|------------------|------------|
| 3600: <i>Research, Development, Test & Evaluation, Air Force</i> BA 3: <i>Advanced Technology Development (ATD)</i> | | | | PE 0603601F: <i>Conventional Weapons Technology</i> | | | | | | | |
| COST (\$ in Millions) | FY 2010 | FY 2011 | FY 2012 Base | FY 2012 OCO | FY 2012 Total | FY 2013 | FY 2014 | FY 2015 | FY 2016 | Cost To Complete | Total Cost |
| Total Program Element | 13.991 | 15.755 | 54.042 | - | 54.042 | 26.852 | 20.996 | 17.389 | 17.675 | Continuing | Continuing |
| 63670A: <i>Conventional Weapons Development</i> | 13.991 | 15.755 | 54.042 | - | 54.042 | 26.852 | 20.996 | 17.389 | 17.675 | Continuing | Continuing |

A. Mission Description and Budget Item Justification

This program develops, demonstrates, and integrates ordnance and advanced guidance technologies for air-launched conventional weapons. The program includes development of conventional ordnance technologies including warheads, fuzes, and explosives; and development of advanced guidance technologies including seekers, navigation and control, and guidance. Technologies to be developed, demonstrated and integrated include blast, fragmentation, penetration, low-collateral damage warheads, variable depth/location fuzing, precise guidance, and high performance and insensitive explosives. Efforts in this program have been coordinated through the Reliance 21 process to harmonize efforts and eliminate duplication. This program is in the 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 2010 | FY 2011 | FY 2012 Base | FY 2012 OCO | FY 2012 Total |
|---|----------------|----------------|---------------------|--------------------|----------------------|
| Previous President's Budget | 14.296 | 15.755 | 19.357 | - | 19.357 |
| Current President's Budget | 13.991 | 15.755 | 54.042 | - | 54.042 |
| Total Adjustments | -0.305 | - | 34.685 | - | 34.685 |
| • Congressional General Reductions | | - | | | |
| • Congressional Directed Reductions | | - | | | |
| • Congressional Rescissions | - | - | | | |
| • Congressional Adds | | - | | | |
| • Congressional Directed Transfers | | - | | | |
| • Reprogrammings | - | - | | | |
| • SBIR/STTR Transfer | -0.305 | - | | | |
| • Other Adjustments | - | - | 34.685 | - | 34.685 |

Change Summary Explanation

NOTE: Increase in FY12 is due to an increase in Air Force priority for a hard target defeat capability.

UNCLASSIFIED

UNCLASSIFIED

| | | | | | | | | | | | |
|---|----------------|----------------|---------------------|---|----------------------|----------------|----------------|---|---------------------|-------------------------|----------------------|
| Exhibit R-2A, RDT&E Project Justification: PB 2012 Air Force | | | | | | | | DATE: February 2011 | | | |
| APPROPRIATION/BUDGET ACTIVITY 3600: <i>Research, Development, Test & Evaluation, Air Force</i> BA 3: <i>Advanced Technology Development (ATD)</i> | | | | R-1 ITEM NOMENCLATURE PE 0603601F: <i>Conventional Weapons Technology</i> | | | | PROJECT 63670A: <i>Conventional Weapons Development</i> | | | |
| COST (\$ in Millions) | FY 2010 | FY 2011 | FY 2012 Base | FY 2012 OCO | FY 2012 Total | FY 2013 | FY 2014 | FY 2015 | FY 2016 | Cost To Complete | Total Cost |
| 63670A: <i>Conventional Weapons Development</i> | 13.991 | 15.755 | 54.042 | - | 54.042 | 26.852 | 20.996 | 17.389 | 17.675 | Continuing | Continuing |
| A. Mission Description and Budget Item Justification This program develops, demonstrates, and integrates ordnance and advanced guidance technologies for air-launched conventional weapons. The program includes development of conventional ordnance technologies including warheads, fuzes, and explosives; and development of advanced guidance technologies including seekers, navigation and control, and guidance. Technologies to be developed, demonstrated and integrated include blast, fragmentation, penetration, low-collateral damage warheads, variable depth/location fuzing, precise guidance, and high performance and insensitive explosives. Efforts in this program have been coordinated through the Reliance 21 process to harmonize efforts and eliminate duplication. This program is in the 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. Accomplishments/Planned Programs (\$ in Millions) | | | | | | | FY 2010 | FY 2011 | FY 2012 Base | FY 2012 OCO | FY 2012 Total |
| Title: Major Thrust 1 Description: Develop and demonstrate ordnance technologies to improve conventional, air delivered munitions. Specific technical areas of focus include fuzes, energetic materials, warheads, and integration. FY 2010 Accomplishments: Completed development of an active imaging target device that can provide warhead aimpoint selection for mass focused warheads. Began developing a conventional ordnance package consisting of a case, fuze, fuzewell, and explosive fill capable of penetrating high performance concrete at velocities up to 2500 feet per second. FY 2011 Plans: Continue developing a conventional ordnance package capable of penetrating high performance concrete at velocities up to 2500 feet per second. FY 2012 Base Plans: Continue developing a conventional ordnance package capable of penetrating high performance concrete at velocities up to 2500 feet per second. Develop and demonstrate technologies and approaches that incorporate velocity augmentation capability for penetrating weapons. Develop an ordnance package that enables the warfighter to tailor the weapon effects for the target and its surrounding environment. FY 2012 OCO Plans: | | | | | | | 5.800 | 9.255 | 29.257 | - | 29.257 |

UNCLASSIFIED

UNCLASSIFIED

| | | | | | |
|---|---------|---|---------------------|---|---------------|
| Exhibit R-2A, RDT&E Project Justification: PB 2012 Air Force | | | DATE: February 2011 | | |
| APPROPRIATION/BUDGET ACTIVITY 3600: Research, Development, Test & Evaluation, Air Force BA 3: Advanced Technology Development (ATD) | | R-1 ITEM NOMENCLATURE PE 0603601F: Conventional Weapons Technology | | PROJECT 63670A: Conventional Weapons Development | |
| B. Accomplishments/Planned Programs (\$ in Millions) | | | | | |
| | FY 2010 | FY 2011 | FY 2012 Base | FY 2012 OCO | FY 2012 Total |
| Title: Major Thrust 2 | | | | | |
| Description: Develop and demonstrate guidance technologies to improve the precision, controlled lethality, and flexibility of conventional, air-delivered munitions. | | | | | |
| FY 2010 Accomplishments: Completed demonstration of a low cost laser detection ordnance seeker to increase data rates. Continued demonstration of advanced guidance technologies to enable small guided munitions to attack multiple moving targets. | | | | | |
| FY 2011 Plans: Continue demonstration of advanced guidance technologies to enable small guided munitions to attack multiple moving targets. | | | | | |
| FY 2012 Base Plans: Continue demonstration of dynamic path planning and target engagement technologies to enable close controlled strike munitions concepts. Develop technology for precision weapon navigation in Global Positioning System - degraded environments. | | | | | |
| FY 2012 OCO Plans: | | | | | |
| Title: Major Thrust 3 | | | | | |
| Description: Demonstrate advanced conventional munition concepts. These innovative concepts integrate ordnance, guidance, and carriage and release technologies to demonstrate a warfighter capability. | | | | | |
| FY 2010 Accomplishments: Continued maturing missile technologies to defeat broad range of small and highly agile air targets as well as high value ground targets, such as enemy air defenses. Continued development of a small short-range precision-guided munition capable of attacking multiple moving targets. | | | | | |
| FY 2011 Plans: Continue maturing missile technologies to defeat a broad range of small and | | | | | |

UNCLASSIFIED

UNCLASSIFIED

| | | | | | | | | | | | |
|---|----------------|---|---------------------|---|----------------------|----------------|----------------|----------------|----------------|-------------------------|-------------------|
| Exhibit R-2A, RDT&E Project Justification: PB 2012 Air Force | | | | DATE: February 2011 | | | | | | | |
| APPROPRIATION/BUDGET ACTIVITY 3600: <i>Research, Development, Test & Evaluation, Air Force</i> BA 3: <i>Advanced Technology Development (ATD)</i> | | R-1 ITEM NOMENCLATURE PE 0603601F: <i>Conventional Weapons Technology</i> | | PROJECT 63670A: <i>Conventional Weapons Development</i> | | | | | | | |
| B. Accomplishments/Planned Programs (\$ in Millions) | | | | | | | | | | | |
| | FY 2010 | FY 2011 | FY 2012 Base | FY 2012 OCO | FY 2012 Total | | | | | | |
| highly agile air targets as well as high value ground targets, such as enemy air defenses. Continue development of a small short range precision-guided munition capable of attacking multiple moving targets. <i>FY 2012 Base Plans:</i> Continue maturing 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. Begin demonstration of technologies that enable a munition to provide effects tailorable to the target and surrounding environment. Further refine employment concepts and system technologies for high speed penetrating weapons with velocity augmentation. Begin development of a munition concept to incorporate technologies for carriage and terminal impact at high speed. Continue demonstration of technologies that enable a small short range precision guided munition to attack multiple moving targets. <i>FY 2012 OCO Plans:</i> | | | | | | | | | | | |
| Accomplishments/Planned Programs Subtotals | 13.991 | 15.755 | 54.042 | - | 54.042 | | | | | | |
| C. Other Program Funding Summary (\$ in Millions) | | | | | | | | | | | |
| Line Item | FY 2010 | FY 2011 | FY 2012 Base | FY 2012 OCO | FY 2012 Total | FY 2013 | FY 2014 | FY 2015 | FY 2016 | Cost To Complete | Total Cost |
| • Activity Not Provided: <i>Title Not Provided</i> | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | Continuing | Continuing |
| D. Acquisition Strategy N/A | | | | | | | | | | | |
| E. 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. | | | | | | | | | | | |

UNCLASSIFIED