

**UNCLASSIFIED**

|   |                            |
|---|----------------------------|
| <b>Exhibit R-2, RDT&amp;E Budget Item Justification:</b> PB 2013 Navy | <b>DATE:</b> February 2012 |
|---|----------------------------|

| APPROPRIATION/BUDGET ACTIVITY   |         |         |              | R-1 ITEM NOMENCLATURE                         |               |         |         |         |         |                  |            |
|---|---------|---------|--------------|---|---------------|---------|---------|---------|---------|------------------|------------|
| 1319: <i>Research, Development, Test &amp; Evaluation, Navy</i><br>BA 5: <i>Development &amp; Demonstration (SDD)</i> |         |         |              | PE 0604329N: <i>Small Diameter Bomb (SDB)</i> |               |         |         |         |         |                  |            |
| COST (\$ in Millions)   | FY 2011 | FY 2012 | FY 2013 Base | FY 2013 OCO                                   | FY 2013 Total | FY 2014 | FY 2015 | FY 2016 | FY 2017 | Cost To Complete | Total Cost |
| Total Program Element   | 15.732  | 29.635  | 31.064       | -   | 31.064        | 48.434  | 52.080  | 57.501  | 72.860  | Continuing       | Continuing |
| 3072: <i>Small Diameter Bomb (SDB)</i>  | 13.396  | 19.555  | 17.792       | -   | 17.792        | 30.573  | 32.612  | 45.249  | 64.428  | Continuing       | Continuing |
| 3082: <i>JMM BRU</i>  | 2.336   | 10.080  | 13.272       | -   | 13.272        | 17.861  | 19.468  | 12.252  | 8.432   | Continuing       | Continuing |

**Note**

In FY 2011, Project Unit (PU) 3082 was established for Joint Miniature Munitions Bomb Rack Unit (JMM BRU) development. Funding for this PU was transferred from PU 3072 for FY11 through FY17.

**A. Mission Description and Budget Item Justification**

Small Diameter Bomb Increment II (SDB II) is a joint program, with the Air Force (AF) as the lead service, which provides the warfighter a capability to attack mobile targets in all weather from Stand-Off range. SDB II addresses the following warfighter requirements: attack mobile targets, adverse weather operations, multiple kills per pass, multiple ordnance carriage, precision munitions capability, capability against fixed targets, reduced munitions footprint, increased weapons effectiveness, minimized potential for collateral damage, reduced susceptibility of munitions to countermeasures and provides a net-centric operations capability. The threshold aircraft for the AF is the F-15E and the threshold aircraft for the Department of Navy (DoN) are the F-35B and F-35C. SDB II will be compatible with the JMM BRU (BRU-61A/A).

**UNCLASSIFIED**

|   |                            |
|---|----------------------------|
| <b>Exhibit R-2, RDT&amp;E Budget Item Justification: PB 2013 Navy</b> | <b>DATE:</b> February 2012 |
|---|----------------------------|

|   |   |
|---|---|
| <b>APPROPRIATION/BUDGET ACTIVITY</b><br>1319: <i>Research, Development, Test &amp; Evaluation, Navy</i><br>BA 5: <i>Development &amp; Demonstration (SDD)</i> | <b>R-1 ITEM NOMENCLATURE</b><br>PE 0604329N: <i>Small Diameter Bomb (SDB)</i> |
|---|---|

| <b>B. Program Change Summary (\$ 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> |
|---|----------------|----------------|---------------------|--------------------|----------------------|
| Previous President's Budget                       | 44.091         | 47.635         | 45.883              | -                  | 45.883               |
| Current President's Budget                        | 15.732         | 29.635         | 31.064              | -                  | 31.064               |
| Total Adjustments                                 | -28.359        | -18.000        | -14.819             | -                  | -14.819              |
| • Congressional General Reductions                | -              | -              |                     |                    |                      |
| • Congressional Directed Reductions               | -              | -18.000        |                     |                    |                      |
| • Congressional Rescissions                       | -              | -              |                     |                    |                      |
| • Congressional Adds                              | -              | -              |                     |                    |                      |
| • Congressional Directed Transfers                | -              | -              |                     |                    |                      |
| • Reprogrammings                                  | -4.582         | -              |                     |                    |                      |
| • SBIR/STTR Transfer                              | -1.054         | -              |                     |                    |                      |
| • Program Adjustments                             | -              | -              | -14.870             | -                  | -14.870              |
| • Rate/Misc Adjustments                           | -              | -              | 0.051               | -                  | 0.051                |
| • Congressional Recision Adjustments              | -2.600         | -              | -                   | -                  | -                    |
| • Congressional General Reductions                | -0.123         | -              | -                   | -                  | -                    |
| Adjustments                                       |                |                |                     |                    |                      |
| • Congressional Directed Reductions               | -20.000        | -              | -                   | -                  | -                    |
| Adjustments                                       |                |                |                     |                    |                      |

**Change Summary Explanation**

Technical:

Schedule: SDB II - LRIP contract awards I through V moved forward from 4Q to 2Q of each year to accurately depict the current award dates.

As a result of the Joint Strike Fighter (F-35) program's restructure, SDB II and JMM BRU integration programs were moved from JSF OFP Block 3 to OFP Block 4. New IOC for Department of Navy is FY2020.

**UNCLASSIFIED**

|  |         |         |              |   |               |         |         |  |         |                  |            |
|--|---------|---------|--------------|---|---------------|---------|---------|--|---------|------------------|------------|
| Exhibit R-2A, RDT&E Project Justification: PB 2013 Navy  |         |         |              |   |               |         |         | DATE: February 2012                        |         |                  |            |
| APPROPRIATION/BUDGET ACTIVITY<br>1319: Research, Development, Test & Evaluation, Navy<br>BA 5: Development & Demonstration (SDD)   |         |         |              | R-1 ITEM NOMENCLATURE<br>PE 0604329N: Small Diameter Bomb (SDB) |               |         |         | PROJECT<br>3072: Small Diameter Bomb (SDB) |         |                  |            |
| COST (\$ in Millions)  | FY 2011 | FY 2012 | FY 2013 Base | FY 2013 OCO   | FY 2013 Total | FY 2014 | FY 2015 | FY 2016                                    | FY 2017 | Cost To Complete | Total Cost |
| 3072: Small Diameter Bomb (SDB)  | 13.396  | 19.555  | 17.792       | -   | 17.792        | 30.573  | 32.612  | 45.249                                     | 64.428  | Continuing       | Continuing |
| Quantity of RDT&E Articles   | 0       | 0       | 0            | 0   | 0             | 0       | 0       | 0  | 0       |                  |            |
| A. Mission Description and Budget Item Justification   |         |         |              |   |               |         |         |  |         |                  |            |
| SDB II is an ACAT ID program providing the warfighter a capability to attack mobile targets in all weather from Stand-Off range. The Air Force is the lead service, Raytheon in Tucson, AZ is the prime contractor. SDB II addresses the following warfighter requirements: attack mobile targets; multiple kills per pass; multiple ordnance carriage; all weather operations; near-precision munitions capability; capability against fixed targets; reduced munitions footprint; increased weapons effectiveness; minimized potential for collateral damage; reduced susceptibility of munitions to countermeasures; and a migration path to net centric ops capability. Threshold aircraft is the F-15E for the Air Force and F-35B and F-35C for the Department of the Navy. Objective aircraft include the F/A-22, B-1, B-2, F-117, F-16, B-52, Predator B, and F/A-18E/F. |         |         |              |   |               |         |         |  |         |                  |            |
| As a result of the Joint Strike Fighter (F-35) program's restructure, SDB II integration was moved from the JSF OFP Block 3 to Block 4. New IOC is FY2020.   |         |         |              |   |               |         |         |  |         |                  |            |
| B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)   |         |         |              |   |               |         |         | FY 2011                                    | FY 2012 | FY 2013          |            |
| Title: SDB II Weapon Support<br><br>Articles:<br><br>Description: Funding provides for SDB II Engineering Manufacturing and Development (EMD) efforts including weapon vendor support, test assets, and government support.<br><br>FY 2011 Accomplishments:<br>Continue support of EMD; integration of SDB II with F-35B and F-35C.<br><br>FY 2012 Plans:<br>Continue support of EMD; integration of SDB II with F-35B and F-35C.<br><br>FY 2013 Plans:<br>Continue support of EMD; integration of SDB II with F-35B and F-35C.  |         |         |              |   |               |         |         | 8.986                                      | 10.187  | 10.821           |            |
|  |         |         |              |   |               |         |         | 13   | 80      | 0                |            |
|  |         |         |              |   |               |         |         |  |         |                  |            |
|  |         |         |              |   |               |         |         |  |         |                  |            |
| Title: JSF Integration<br><br>Articles:<br><br>Description: Funding provided for integration of SDB II on F-35B and F-35C, specifically for Lockheed Martin to develop F-35 Operational Flight Program (OFP) software, flight missions, and support and analysis of missions.<br><br>FY 2011 Accomplishments:  |         |         |              |   |               |         |         | 4.410                                      | 9.368   | 6.971            |            |
|  |         |         |              |   |               |         |         | 0  | 0       | 0                |            |
|  |         |         |              |   |               |         |         |  |         |                  |            |
|  |         |         |              |   |               |         |         |  |         |                  |            |

**UNCLASSIFIED**

|  |         |         |                 |   |                  |         |         |  |                     |                     |            |
|--|---------|---------|-----------------|---|------------------|---------|---------|--|---------------------|---------------------|------------|
| Exhibit R-2A, RDT&E Project Justification: PB 2013 Navy  |         |         |                 |   |                  |         |         |  | DATE: February 2012 |                     |            |
| APPROPRIATION/BUDGET ACTIVITY<br>1319: Research, Development, Test & Evaluation, Navy<br>BA 5: Development & Demonstration (SDD)   |         |         |                 | R-1 ITEM NOMENCLATURE<br>PE 0604329N: Small Diameter Bomb (SDB) |                  |         |         | PROJECT<br>3072: Small Diameter Bomb (SDB) |                     |                     |            |
| B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)   |         |         |                 |   |                  |         |         |  | FY 2011             | FY 2012             | FY 2013    |
| Continue F-35 OFP development and coding and support fit checks with SDB II Weapon Vendor (Raytheon).  |         |         |                 |   |                  |         |         |  |                     |                     |            |
| FY 2012 Plans:<br>Continue F-35 OFP development and coding and support fit checks with SDB II Weapon Vendor (Raytheon).  |         |         |                 |   |                  |         |         |  |                     |                     |            |
| FY 2013 Plans:<br>Continue F-35 OFP development and coding and support fit checks with SDB II Weapon Vendor (Raytheon).  |         |         |                 |   |                  |         |         |  |                     |                     |            |
| Accomplishments/Planned Programs Subtotals   |         |         |                 |   |                  |         |         |  | 13.396              | 19.555              | 17.792     |
| C. Other Program Funding Summary (\$ in Millions)  |         |         |                 |   |                  |         |         |  |                     |                     |            |
| Line Item  | FY 2011 | FY 2012 | FY 2013<br>Base | FY 2013<br>OCO  | FY 2013<br>Total | FY 2014 | FY 2015 | FY 2016                                    | FY 2017             | Cost To<br>Complete | Total Cost |
| • WPN/223800: Small Diameter Bomb II   | 0.000   | 0.000   | 0.000           | 0.000   | 0.000            | 0.000   | 0.000   | 0.000                                      | 25.543              | 653.590             | 679.133    |
| • RDTE,AF/0604329F: Small Diameter Bomb  | 99.992  | 132.881 | 143.000         | 0.000   | 143.000          | 115.000 | 54.000  | 18.000                                     | 64.000              | 39.681              | 1,159.664  |
| • MPAF/0207327F: Small Diameter Bomb   | 0.000   | 0.000   | 42.000          | 0.000   | 42.000           | 62.000  | 88.000  | 87.000                                     | 81.000              | 1,529.637           | 1,889.637  |
| D. Acquisition Strategy  |         |         |                 |   |                  |         |         |  |                     |                     |            |
| The SDB Increment II acquisition strategy is to conduct a full and open competition to select up to two contractors to compete during a planned 42-month risk reduction phase prior to entering Engineering, Manufacturing and Development (EMD). This competition began April 17, 2006 with the signature of contracts to the competing contractors: 1) Raytheon and 2) the team of Boeing and Lockheed Martin. A Fixed Price Incentive Firm type contract for EMD, including Firm Fixed Price procurement options for Lots 1-3 was awarded to Raytheon August 9, 2010. Lots 4 & 5 are included in the contract, but are Not-To-Exceed options. |         |         |                 |   |                  |         |         |  |                     |                     |            |
| The Navy funding will support Navy-unique efforts for SDB Increment II, such as aircraft integration, ship suitability, studies and analysis, and program management and government in-house support. These efforts will be performed on several cost-type contracts or through cost reimbursable work requests to government activities and contractors.  |         |         |                 |   |                  |         |         |  |                     |                     |            |
| E. Performance Metrics   |         |         |                 |   |                  |         |         |  |                     |                     |            |
| Earned Value Management has been implemented on the EMD contract with Raytheon.  |         |         |                 |   |                  |         |         |  |                     |                     |            |

## UNCLASSIFIED

|  |                        |  |                        |   |            |              |            |  |            |               |                     |            |                          |  |
|--|------------------------|--|------------------------|---|------------|--------------|------------|--|------------|---------------|---------------------|------------|--------------------------|--|
| Exhibit R-3, RDT&E Project Cost Analysis: PB 2013 Navy   |                        |  |                        |   |            |              |            |  |            |               | DATE: February 2012 |            |                          |  |
| APPROPRIATION/BUDGET ACTIVITY<br>1319: Research, Development, Test & Evaluation, Navy<br>BA 5: Development & Demonstration (SDD)   |                        |  |                        | R-1 ITEM NOMENCLATURE<br>PE 0604329N: Small Diameter Bomb (SDB) |            |              |            | PROJECT<br>3072: Small Diameter Bomb (SDB) |            |               |                     |            |                          |  |
| Product Development (\$ in Millions)   |                        |  |                        | FY 2012   |            | FY 2013 Base |            | FY 2013 OCO                                |            | FY 2013 Total |                     |            |                          |  |
| Cost Category Item   | Contract Method & Type | Performing Activity & Location         | Total Prior Years Cost | Cost  | Award Date | Cost         | Award Date | Cost                                       | Award Date | Cost          | Cost To Complete    | Total Cost | Target Value of Contract |  |
| Primary Hardware Development - (JSuW/HTVSF/ SDB II Risk Reduction)   | C/CPFF                 | Various:Various                        | 11.238                 | -   |            | -            |            | -  |            | -             | 0.000               | 11.238     | 11.238                   |  |
| Aircraft Integration - JSF   | C/CPFF                 | Lockheed Martin:Fort Worth, TX         | 18.359                 | 3.165   | Jan 2012   | 5.112        | Jan 2013   | -  |            | 5.112         | 56.970              | 83.606     | 83.606                   |  |
| Primary Hardware Development - SDB II EMD  | C/FPIF                 | Raytheon:Tucson, AZ                    | 6.181                  | 0.792   | Jan 2012   | 1.094        | Jan 2013   | -  |            | 1.094         | 45.820              | 53.887     | 53.887                   |  |
| BRU-61   | C/CPFF                 | McDonnell Douglas Corp:St Charles, MO  | 4.259                  | -   |            | -            |            | -  |            | -             | 0.000               | 4.259      | 4.259                    |  |
| Subtotal   |                        |  | 40.037                 | 3.957   |            | 6.206        |            | -  |            | 6.206         | 102.790             | 152.990    | 152.990                  |  |
| Remarks<br>Primary Hardware Development Prior Years includes McDonnell Douglas Corp and Raytheon Missile Systems Primary H/W Development for the SDB II 42-month risk reduction phase, \$4.393M for Boeing/Lockheed Martin team and \$4.393M for Raytheon and \$2.6M for Joint Surface Warfare (JSuW) efforts with Raytheon. Primary H/W and Aircraft Integration to Raytheon in Tucson, AZ reflects the winning SDB II contractor. Funding for Lockheed Martin F-35 does not include OFP nor Test missions which are represented in Support and Test sections. Beginning FY11, funding for JMM BRU (BRU-61A/A) is included in PU3082. |                        |  |                        |   |            |              |            |  |            |               |                     |            |                          |  |
| Support (\$ in Millions)   |                        |  |                        | FY 2012   |            | FY 2013 Base |            | FY 2013 OCO                                |            | FY 2013 Total |                     |            |                          |  |
| Cost Category Item   | Contract Method & Type | Performing Activity & Location         | Total Prior Years Cost | Cost  | Award Date | Cost         | Award Date | Cost                                       | Award Date | Cost          | Cost To Complete    | Total Cost | Target Value of Contract |  |
| Software Development - JSuW/WDLN/HTVSF   | Various                | Various:Various                        | 14.715                 | -   |            | -            |            | -  |            | -             | 0.000               | 14.715     | 14.715                   |  |
| Software Development - JSF   | C/CPFF                 | Lockheed Martin:Ft. Worth, TX          | -                      | 3.550   | Jun 2012   | 1.505        | Jun 2013   | -  |            | 1.505         | 32.152              | 37.207     | 37.207                   |  |
| Studies & Analyses   | C/CPFF                 | Johns Hopkins University:Baltimore, MD | 2.695                  | -   |            | -            |            | -  |            | -             | 0.000               | 2.695      | 2.695                    |  |
| Subtotal   |                        |  | 17.410                 | 3.550   |            | 1.505        |            | -  |            | 1.505         | 32.152              | 54.617     | 54.617                   |  |
| Remarks<br>Studies and Analyses include Navy activities to define CONOPS and better define Navy-specific and interoperability requirements, such as Weapon Data Link Advanced Concept Technology Demonstration, Seeker Trade Studies, and Data Link Trade Studies. Prior year Software Development efforts are in support of JSuW Joint Capability Technology  |                        |  |                        |   |            |              |            |  |            |               |                     |            |                          |  |

**UNCLASSIFIED**

|   |                        |                                |                        |   |            |              |            |  |            |               |                     |            |                          |  |
|---|------------------------|--------------------------------|------------------------|---|------------|--------------|------------|--|------------|---------------|---------------------|------------|--------------------------|--|
| Exhibit R-3, RDT&E Project Cost Analysis: PB 2013 Navy  |                        |                                |                        |   |            |              |            |  |            |               | DATE: February 2012 |            |                          |  |
| APPROPRIATION/BUDGET ACTIVITY<br>1319: Research, Development, Test & Evaluation, Navy<br>BA 5: Development & Demonstration (SDD)  |                        |                                |                        | R-1 ITEM NOMENCLATURE<br>PE 0604329N: Small Diameter Bomb (SDB) |            |              |            | PROJECT<br>3072: Small Diameter Bomb (SDB) |            |               |                     |            |                          |  |
| Support (\$ in Millions)  |                        |                                |                        | FY 2012   |            | FY 2013 Base |            | FY 2013 OCO                                |            | FY 2013 Total |                     |            |                          |  |
| Cost Category Item  | Contract Method & Type | Performing Activity & Location | Total Prior Years Cost | Cost  | Award Date | Cost         | Award Date | Cost                                       | Award Date | Cost          | Cost To Complete    | Total Cost | Target Value of Contract |  |
| Demonstrations (JCTD) incorporation of J.11 Message Set into Strike Weapons and Weapon Data Link Network efforts. Software Development for JSF is the Universal Armament Interface (UAI), Operational Flight Plan (OFP) and mission planning which supports the SDB II program. |                        |                                |                        |   |            |              |            |  |            |               |                     |            |                          |  |
| Test and Evaluation (\$ in Millions)  |                        |                                |                        | FY 2012   |            | FY 2013 Base |            | FY 2013 OCO                                |            | FY 2013 Total |                     |            |                          |  |
| Cost Category Item  | Contract Method & Type | Performing Activity & Location | Total Prior Years Cost | Cost  | Award Date | Cost         | Award Date | Cost                                       | Award Date | Cost          | Cost To Complete    | Total Cost | Target Value of Contract |  |
| Developmental Test & Evaluation - JSuW/WDLN   | Various                | Various:Various                | 2.864                  | -   |            | -            |            | -  |            | -             | 4.007               | 6.871      |                          |  |
| Operational Test & Evaluation - SDB II  | WR                     | COMOPTEVFOR:China Lake, CA     | 1.010                  | -   |            | -            |            | -  |            | -             | 15.701              | 16.711     |                          |  |
| Developmental Test & Evaluation - SDB II  | C/CPFF                 | Lockheed Martin:Ft. Worth, TX  | -                      | -   |            | 1.322        | Jan 2013   | -  |            | 1.322         | 64.897              | 66.219     | 66.219                   |  |
| SDB II Weapon Test Assets   | C/FFP                  | Raytheon:Tucson, AZ            | 2.060                  | 5.989   | Jan 2012   | 2.962        | Jan 2013   | -  |            | 2.962         | 15.239              | 26.250     | 26.250                   |  |
| Subtotal  |                        |                                | 5.934                  | 5.989   |            | 4.284        |            | -  |            | 4.284         | 99.844              | 116.051    |                          |  |
| Remarks   |                        |                                |                        |   |            |              |            |  |            |               |                     |            |                          |  |
| Developmental T&E Lockheed Martin in FY 2013 supports wind tunnel testing. Test assets include weapon assets required for Development Test and Operational Test.  |                        |                                |                        |   |            |              |            |  |            |               |                     |            |                          |  |
| Management Services (\$ in Millions)  |                        |                                |                        | FY 2012   |            | FY 2013 Base |            | FY 2013 OCO                                |            | FY 2013 Total |                     |            |                          |  |
| Cost Category Item  | Contract Method & Type | Performing Activity & Location | Total Prior Years Cost | Cost  | Award Date | Cost         | Award Date | Cost                                       | Award Date | Cost          | Cost To Complete    | Total Cost | Target Value of Contract |  |
| Contractor Services   | Various                | Various:Various                | 2.099                  | 0.297   | Nov 2011   | 0.312        | Nov 2012   | -  |            | 0.312         | 2.252               | 4.960      | 4.960                    |  |
| Government Support  | WR                     | NAWC WD:China Lake             | 19.706                 | 2.646   | Nov 2011   | 2.761        | Nov 2012   | -  |            | 2.761         | 19.298              | 44.411     |                          |  |
| Government Support  | WR                     | Various:Various                | 8.729                  | 0.569   | Nov 2011   | 0.170        | Nov 2012   | -  |            | 0.170         | 3.593               | 13.061     |                          |  |
| Program Management Support  | WR                     | Various:Various                | 3.674                  | 2.347   | Nov 2011   | 2.374        | Nov 2012   | -  |            | 2.374         | 13.385              | 21.780     |                          |  |
| Travel  | MIPR                   | ASC20OG:Eglin AFB, FL          | 1.606                  | 0.200   | Oct 2011   | 0.180        | Oct 2012   | -  |            | 0.180         | 1.400               | 3.386      |                          |  |
| Subtotal  |                        |                                | 35.814                 | 6.059   |            | 5.797        |            | -  |            | 5.797         | 39.928              | 87.598     |                          |  |

**UNCLASSIFIED**

|  |                              |         |   |                 |  |                |  |                     |                     |            |                                |
|--|------------------------------|---------|---|-----------------|--|----------------|--|---------------------|---------------------|------------|--------------------------------|
| Exhibit R-3, RDT&E Project Cost Analysis: PB 2013 Navy   |                              |         |   |                 |  |                |  | DATE: February 2012 |                     |            |                                |
| APPROPRIATION/BUDGET ACTIVITY<br>1319: Research, Development, Test & Evaluation, Navy<br>BA 5: Development & Demonstration (SDD) |                              |         | R-1 ITEM NOMENCLATURE<br>PE 0604329N: Small Diameter Bomb (SDB) |                 |  |                | PROJECT<br>3072: Small Diameter Bomb (SDB) |                     |                     |            |                                |
|  | Total Prior<br>Years<br>Cost | FY 2012 |   | FY 2013<br>Base |  | FY 2013<br>OCO |  | FY 2013<br>Total    | Cost To<br>Complete | Total Cost | Target<br>Value of<br>Contract |
| Project Cost Totals  | 99.195                       | 19.555  |   | 17.792          |  | -              |  | 17.792              | 274.714             | 411.256    |                                |

Remarks

UNCLASSIFIED

|  |  |   |
|--|--|---|
| Exhibit R-4, RDT&E Schedule Profile: PB 2013 Navy  |  | DATE: February 2012                               |
| APPROPRIATION/BUDGET ACTIVITY<br>1319: <i>Research, Development, Test &amp; Evaluation, Navy</i><br>BA 5: <i>Development &amp; Demonstration (SDD)</i> | R-1 ITEM NOMENCLATURE<br>PE 0604329N: <i>Small Diameter Bomb (SDB)</i> | PROJECT<br>3072: <i>Small Diameter Bomb (SDB)</i> |
|  |  |   |



**UNCLASSIFIED**

|   |   |  |                            |
|---|---|--|----------------------------|
| <b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2013 Navy   |   |  | <b>DATE:</b> February 2012 |
| <b>APPROPRIATION/BUDGET ACTIVITY</b><br>1319: <i>Research, Development, Test &amp; Evaluation, Navy</i><br>BA 5: <i>Development &amp; Demonstration (SDD)</i> | <b>R-1 ITEM NOMENCLATURE</b><br>PE 0604329N: <i>Small Diameter Bomb (SDB)</i> | <b>PROJECT</b><br>3072: <i>Small Diameter Bomb (SDB)</i> |                            |

**Schedule Details**

| Events by Sub Project   | Start   |      | End     |      |
|---|---------|------|---------|------|
|   | Quarter | Year | Quarter | Year |
| <b><i>Small Diameter Bomb II</i></b>  |         |      |         |      |
| Acquisition Milestones: Milestones: MS C  | 4       | 2013 | 4       | 2013 |
| Systems Development: Hardware Development: Engineering Manufacturing and Development (EMD)  | 1       | 2011 | 1       | 2017 |
| Systems Development: Hardware Development: Dual Power BRU-61/A  | 1       | 2011 | 2       | 2012 |
| Systems Development: Hardware Development: SDB II Qualification BRU-61/A  | 1       | 2011 | 4       | 2014 |
| Test & Evaluation: Technical Evaluation: Developmental Test   | 2       | 2017 | 4       | 2017 |
| Production Milestones: Contract Awards: Low Rate Initial Production (LRIP) I Contract Award (USAF Only) (Missile Procurement, AF) | 2       | 2013 | 2       | 2013 |
| Production Milestones: Contract Awards: LRIP II Contract Award (USAF Only) (Missile Procurement, AF)                              | 2       | 2014 | 2       | 2014 |
| Production Milestones: Contract Awards: LRIP III Contract Award (USAF Only) (Missile Procurement, AF)                             | 2       | 2015 | 2       | 2015 |
| Production Milestones: Contract Awards: LRIP IV Contract Award (USAF Only) (Missile Procurement, AF)                              | 2       | 2016 | 2       | 2016 |
| Production Milestones: Contract Awards: LRIP V Contract Award (USAF and DoN) (Missile Procurement, AF and WPN)                    | 2       | 2017 | 2       | 2017 |
| Deliveries: LRIP I Deliveries (USAF only)   | 2       | 2014 | 2       | 2015 |
| Deliveries: LRIP II Deliveries (USAF only)  | 2       | 2015 | 2       | 2016 |
| Deliveries: LRIP III Deliveries (USAF only)   | 2       | 2016 | 2       | 2017 |
| Deliveries: LRIP IV Deliveries (USAF only)  | 2       | 2017 | 4       | 2017 |

**UNCLASSIFIED**

|   |         |         |              |   |               |         |         |                          |                     |                  |            |
|---|---------|---------|--------------|---|---------------|---------|---------|--------------------------|---------------------|------------------|------------|
| Exhibit R-2A, RDT&E Project Justification: PB 2013 Navy   |         |         |              |   |               |         |         |                          | DATE: February 2012 |                  |            |
| APPROPRIATION/BUDGET ACTIVITY<br>1319: Research, Development, Test & Evaluation, Navy<br>BA 5: Development & Demonstration (SDD)  |         |         |              | R-1 ITEM NOMENCLATURE<br>PE 0604329N: Small Diameter Bomb (SDB) |               |         |         | PROJECT<br>3082: JMM BRU |                     |                  |            |
| COST (\$ in Millions)   | FY 2011 | FY 2012 | FY 2013 Base | FY 2013 OCO   | FY 2013 Total | FY 2014 | FY 2015 | FY 2016                  | FY 2017             | Cost To Complete | Total Cost |
| 3082: JMM BRU   | 2.336   | 10.080  | 13.272       | -   | 13.272        | 17.861  | 19.468  | 12.252                   | 8.432               | Continuing       | Continuing |
| Quantity of RDT&E Articles  | 0       | 0       | 0            | 0   | 0             | 0       | 0       | 0                        | 0                   |                  |            |
| Note<br>In FY 2011, a second project unit 3082 was established for Joint Miniature Munitions Bomb Rack Unit (JMM BRU). Funding was realigned from project unit 3072 Small Diameter Bomb to provide better tracking of the JMM BRU.  |         |         |              |   |               |         |         |                          |                     |                  |            |
| A. Mission Description and Budget Item Justification<br>The Joint Miniature Munitions Bomb Rack Unit (JMM BRU) is an Air Force led ACAT III program. It is required for the DoN carriage of the SDB II weapon in the internal bay of the F-35B and F-35C and operation in the Department of Navy environment. The SDB II Capability Development Document states that it must be operable on the Miniature Munitions Smart Rack BRU-61/A. The BRU-61/A, currently in production in the USAF, does not meet the needs to operate with SDB II within the F-35 internal bay in the DoN environment. The JMM BRU, designated BRU-61A/A, fills the capability gap required by the DoN. Efforts include development of a dual poower capability to meet the SDB II operating environment on the F-35.<br><br>SDB II and the JMM BRU integration were moved from F-35 Block 3 to Block 4. Budgets and schedules have been modified to meet the F-35 Block 4 schedule. |         |         |              |   |               |         |         |                          |                     |                  |            |
| B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)  |         |         |              |   |               |         |         | FY 2011                  | FY 2012             | FY 2013          |            |
| Title: Joint Miniature Munitions Bomb Rack Unit (JMM BRU) Government Support<br><br>Articles:<br><br>Description: Funding provided for the SDB II Carriage System support and integration into Navy environments.<br><br>FY 2011 Accomplishments:<br>Acquisition Strategy development and Request for Proposal development.<br><br>FY 2012 Plans:<br>Support prime contractor contract and initiate Technology Development (TD) Phase. Complete Dual Power development.<br><br>FY 2013 Plans:<br>Continue with TD Phase.  |         |         |              |   |               |         |         | 2.336                    | 2.912               | 3.422            |            |
|   |         |         |              |   |               |         |         | 0                        | 0                   | 0                |            |
|   |         |         |              |   |               |         |         |                          |                     |                  |            |
|   |         |         |              |   |               |         |         |                          |                     |                  |            |
| Title: Joint Miniature Munitions Bomb Rack (JMM BRU) Prime Contractor<br><br>Articles:<br><br>Description: Prime Contractor Support of JMM BRU (BRU-61A/A) Technology Development (TD)/Engineering & Manufacturing Development (EMD) contract.  |         |         |              |   |               |         |         | -                        | 7.168               | 9.850            |            |
|   |         |         |              |   |               |         |         |                          | 3                   | 2                |            |
|   |         |         |              |   |               |         |         |                          |                     |                  |            |
|   |         |         |              |   |               |         |         |                          |                     |                  |            |

**UNCLASSIFIED**

|  |                |                |   |                              |                                |  |                            |                |                |                                   |                   |
|--|----------------|----------------|---|------------------------------|--------------------------------|--|----------------------------|----------------|----------------|-----------------------------------|-------------------|
| <b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2013 Navy   |                |                |   |                              |                                |  | <b>DATE:</b> February 2012 |                |                |                                   |                   |
| <b>APPROPRIATION/BUDGET ACTIVITY</b><br>1319: <i>Research, Development, Test &amp; Evaluation, Navy</i><br>BA 5: <i>Development &amp; Demonstration (SDD)</i>            |                |                | <b>R-1 ITEM NOMENCLATURE</b><br>PE 0604329N: <i>Small Diameter Bomb (SDB)</i> |                              |                                | <b>PROJECT</b><br>3082: <i>JMM BRU</i> |                            |                |                |                                   |                   |
| <b>B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)</b>  |                |                |   |                              |                                |  | <b>FY 2011</b>             | <b>FY 2012</b> | <b>FY 2013</b> |                                   |                   |
| <b>FY 2012 Plans:</b><br>Select Prime Contractor and award TD/EMD contract.  |                |                |   |                              |                                |  |                            |                |                |                                   |                   |
| <b>FY 2013 Plans:</b><br>Continue TD/EMD contract.   |                |                |   |                              |                                |  |                            |                |                |                                   |                   |
| <b>Accomplishments/Planned Programs Subtotals</b>  |                |                |   |                              |                                |  | 2.336                      | 10.080         | 13.272         |                                   |                   |
| <b>C. Other Program Funding Summary (\$ in Millions)</b>   |                |                |   |                              |                                |  |                            |                |                |                                   |                   |
| <u>Line Item</u>   | <u>FY 2011</u> | <u>FY 2012</u> | <u>FY 2013</u><br><u>Base</u>   | <u>FY 2013</u><br><u>OCO</u> | <u>FY 2013</u><br><u>Total</u> | <u>FY 2014</u>                         | <u>FY 2015</u>             | <u>FY 2016</u> | <u>FY 2017</u> | <u>Cost To</u><br><u>Complete</u> | <u>Total Cost</u> |
| • APN/072000: <i>Aircraft Equipment and Facilities</i>   | 0.000          | 0.000          | 0.000   | 0.000                        | 0.000                          | 0.000                                  | 0.000                      | 0.000          | 0.000          | 294.100                           | 294.100           |
| <b>D. Acquisition Strategy</b>   |                |                |   |                              |                                |  |                            |                |                |                                   |                   |
| The JMM BRU is an Air Force led ACAT III program. Industry day was held 4Q FY 2010, Acquisition Strategy approved 1Q FY2011 and Material Development Decision 2Q FY2011. |                |                |   |                              |                                |  |                            |                |                |                                   |                   |
| <b>E. Performance Metrics</b>  |                |                |   |                              |                                |  |                            |                |                |                                   |                   |
| Earned Value Management will be implemented on the TD/EMD contract with the successful offeror for the technology demonstration contract.                                |                |                |   |                              |                                |  |                            |                |                |                                   |                   |

**UNCLASSIFIED**

|   |                        |                                |                        |   |            |              |            |                          |            |                     |                  |            |                          |
|---|------------------------|--------------------------------|------------------------|---|------------|--------------|------------|--------------------------|------------|---------------------|------------------|------------|--------------------------|
| Exhibit R-3, RDT&E Project Cost Analysis: PB 2013 Navy  |                        |                                |                        |   |            |              |            |                          |            | DATE: February 2012 |                  |            |                          |
| APPROPRIATION/BUDGET ACTIVITY<br>1319: Research, Development, Test & Evaluation, Navy<br>BA 5: Development & Demonstration (SDD)  |                        |                                |                        | R-1 ITEM NOMENCLATURE<br>PE 0604329N: Small Diameter Bomb (SDB) |            |              |            | PROJECT<br>3082: JMM BRU |            |                     |                  |            |                          |
| Product Development (\$ in Millions)  |                        |                                |                        | FY 2012   |            | FY 2013 Base |            | FY 2013 OCO              |            | FY 2013 Total       |                  |            |                          |
| Cost Category Item  | Contract Method & Type | Performing Activity & Location | Total Prior Years Cost | Cost  | Award Date | Cost         | Award Date | Cost                     | Award Date | Cost                | Cost To Complete | Total Cost | Target Value of Contract |
| Joint Miniature Munitions Bomb Rack Unit (JMM BRU)  | C/CPIF                 | TBD:TBD                        | 5.130                  | 6.456   | Apr 2012   | 8.912        | Apr 2013   | -                        |            | 8.912               | 28.637           | 49.135     | 49.135                   |
| Subtotal  |                        |                                | 5.130                  | 6.456   |            | 8.912        |            | -                        |            | 8.912               | 28.637           | 49.135     | 49.135                   |
| Remarks   |                        |                                |                        |   |            |              |            |                          |            |                     |                  |            |                          |
| Funding provided to the successful offerer for development of a JMM BRU SDB II carriage system which satisfies DoN environments. JMM BRU will carry four SDB II's and will be capable of being used both internally and externally. |                        |                                |                        |   |            |              |            |                          |            |                     |                  |            |                          |
| Test and Evaluation (\$ in Millions)  |                        |                                |                        | FY 2012   |            | FY 2013 Base |            | FY 2013 OCO              |            | FY 2013 Total       |                  |            |                          |
| Cost Category Item  | Contract Method & Type | Performing Activity & Location | Total Prior Years Cost | Cost  | Award Date | Cost         | Award Date | Cost                     | Award Date | Cost                | Cost To Complete | Total Cost | Target Value of Contract |
| JMM BRU Test Assets   | C/CPFF                 | TBD:TBD                        | -                      | 0.711   | Apr 2012   | 0.885        | Apr 2013   | -                        |            | 0.885               | 6.675            | 8.271      | 8.271                    |
| Subtotal  |                        |                                | -                      | 0.711   |            | 0.885        |            | -                        |            | 0.885               | 6.675            | 8.271      | 8.271                    |
| Remarks   |                        |                                |                        |   |            |              |            |                          |            |                     |                  |            |                          |
| Funding provided to purchase JMM BRU test assets required for DT and OT.  |                        |                                |                        |   |            |              |            |                          |            |                     |                  |            |                          |
| Management Services (\$ in Millions)  |                        |                                |                        | FY 2012   |            | FY 2013 Base |            | FY 2013 OCO              |            | FY 2013 Total       |                  |            |                          |
| Cost Category Item  | Contract Method & Type | Performing Activity & Location | Total Prior Years Cost | Cost  | Award Date | Cost         | Award Date | Cost                     | Award Date | Cost                | Cost To Complete | Total Cost | Target Value of Contract |
| Government Support  | WR                     | NAWC WD:China Lake, CA         | 0.140                  | 0.636   | Nov 2011   | 1.129        | Nov 2012   | -                        |            | 1.129               | 6.930            | 8.835      |                          |
| Government Support  | WR                     | Various:Various                | 1.930                  | 2.227   | Nov 2011   | 2.301        | Nov 2012   | -                        |            | 2.301               | 11.880           | 18.338     |                          |
| Travel  | MIPR                   | ASC20OG:Eglin AFB, FL          | 0.050                  | 0.050   | Oct 2011   | 0.045        | Nov 2012   | -                        |            | 0.045               | 0.250            | 0.395      |                          |
| Subtotal  |                        |                                | 2.120                  | 2.913   |            | 3.475        |            | -                        |            | 3.475               | 19.060           | 27.568     |                          |

**UNCLASSIFIED**

|  |                              |         |  |   |  |                |  |                          |                     |            |                                |
|--|------------------------------|---------|--|---|--|----------------|--|--------------------------|---------------------|------------|--------------------------------|
| Exhibit R-3, RDT&E Project Cost Analysis: PB 2013 Navy   |                              |         |  |   |  |                |  | DATE: February 2012      |                     |            |                                |
| APPROPRIATION/BUDGET ACTIVITY<br>1319: Research, Development, Test & Evaluation, Navy<br>BA 5: Development & Demonstration (SDD) |                              |         |  | R-1 ITEM NOMENCLATURE<br>PE 0604329N: Small Diameter Bomb (SDB) |  |                |  | PROJECT<br>3082: JMM BRU |                     |            |                                |
|  | Total Prior<br>Years<br>Cost | FY 2012 |  | FY 2013<br>Base   |  | FY 2013<br>OCO |  | FY 2013<br>Total         | Cost To<br>Complete | Total Cost | Target<br>Value of<br>Contract |
| Project Cost Totals  | 7.250                        | 10.080  |  | 13.272  |  | -              |  | 13.272                   | 54.372              | 84.974     |                                |

Remarks

UNCLASSIFIED

|  |  |                                 |
|--|--|---------------------------------|
| Exhibit R-4, RDT&E Schedule Profile: PB 2013 Navy  |  | DATE: February 2012             |
| APPROPRIATION/BUDGET ACTIVITY<br>1319: <i>Research, Development, Test &amp; Evaluation, Navy</i><br>BA 5: <i>Development &amp; Demonstration (SDD)</i> | R-1 ITEM NOMENCLATURE<br>PE 0604329N: <i>Small Diameter Bomb (SDB)</i> | PROJECT<br>3082: <i>JMM BRU</i> |
|  |  |                                 |

**UNCLASSIFIED**

|   |   |  |
|---|---|--|
| <b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2013 Navy   |   | <b>DATE:</b> February 2012             |
| <b>APPROPRIATION/BUDGET ACTIVITY</b><br>1319: <i>Research, Development, Test &amp; Evaluation, Navy</i><br>BA 5: <i>Development &amp; Demonstration (SDD)</i> | <b>R-1 ITEM NOMENCLATURE</b><br>PE 0604329N: <i>Small Diameter Bomb (SDB)</i> | <b>PROJECT</b><br>3082: <i>JMM BRU</i> |

Schedule Details

| Events by Sub Project  | Start   |      | End     |      |
|--|---------|------|---------|------|
|  | Quarter | Year | Quarter | Year |
| <b><i>Joint Miniature Munitions Bomb Rack Unit (JMM BRU)</i></b>                           |         |      |         |      |
| Acquisition Milestonees: Milestones: Material Development Decision                         | 2       | 2011 | 2       | 2011 |
| Acquisition Milestonees: Milestones: Milestone B   | 2       | 2015 | 2       | 2015 |
| Systems Development: Hardware Development: Technology Development                          | 2       | 2013 | 2       | 2015 |
| Systems Development: Hardware Development: Engineering Manufacturing and Development (EMD) | 3       | 2015 | 4       | 2017 |
| Systems Development: Reviews: Preliminary Design Review (PDR)                              | 1       | 2015 | 1       | 2015 |
| Systems Development: Reviews: Critical Design Review (CDR)                                 | 4       | 2015 | 4       | 2015 |
| Test & Evaluation: Technical Evaluation: Design Verification                               | 3       | 2014 | 4       | 2015 |
| Test & Evaluation: Technical Evaluation: Environmental Qualification                       | 2       | 2016 | 2       | 2017 |