

# UNCLASSIFIED

|                                                                                                                                        |             |         |         |              |                                                                              |               |         |         |         |                  |                  |            |
|----------------------------------------------------------------------------------------------------------------------------------------|-------------|---------|---------|--------------|------------------------------------------------------------------------------|---------------|---------|---------|---------|------------------|------------------|------------|
| Exhibit R-2, RDT&E Budget Item Justification: PB 2015 Army                                                                             |             |         |         |              |                                                                              |               |         |         |         | Date: March 2014 |                  |            |
| Appropriation/Budget Activity<br>2040: Research, Development, Test & Evaluation, Army / BA 5: System Development & Demonstration (SDD) |             |         |         |              | R-1 Program Element (Number/Name)<br>PE 0604814A / Artillery Munitions - EMD |               |         |         |         |                  |                  |            |
| 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                                                                                                                  | -           | 3.576   | 8.205   | -            | -                                                                            | -             | -       | -       | -       | -                | -                | 11.781     |
| 708: XM982 Projectile                                                                                                                  | -           | 3.576   | 8.205   | -            | -                                                                            | -             | -       | -       | -       | -                | -                | 11.781     |

# The FY 2015 OCO Request will be submitted at a later date.

**Note**  
FY 2013: \$.657 million budget adjustment.

**A. Mission Description and Budget Item Justification**  
Excalibur is a Precision Guided Extended Range 155mm Artillery projectile providing Brigade Combat Teams an organic precision fires capability. Additionally it provides improved fire support capability due to its increased range of 40.5 kilometers and demonstrated accuracy of < 4 meters radial miss distances, which enables a first round effect on target reducing the number of rounds required while reducing collateral damage. Excalibur is compatible with the M777A2 Lightweight 155mm Howitzer (LW155) and the M109A6 Paladin Howitzer and Sweden's Archer Howitzer. Excalibur provides a 35% range increase over current Rocket Assisted Projectiles, with a < 10 meter accuracy circular error probable at all ranges. Excalibur is also highly resistant to Global Positioning System (GPS) jamming. Excalibur is an international program, teamed with the Kingdom of Sweden (KoS), who contributed resources towards the development and have procured rounds in accordance with an established Project Agreement for use in their Archer Howitzer.

Increment 1b completed a successful Milestone C Decision Review on December 12, 2012. The first Low Rate Initial Production contract was awarded on December 21, 2012.

|                                                   |                |                |                     |                    |                      |
|---------------------------------------------------|----------------|----------------|---------------------|--------------------|----------------------|
| <b>B. Program Change Summary (\$ in Millions)</b> | <b>FY 2013</b> | <b>FY 2014</b> | <b>FY 2015 Base</b> | <b>FY 2015 OCO</b> | <b>FY 2015 Total</b> |
| Previous President's Budget                       | 4.346          | 8.209          | -                   | -                  | -                    |
| Current President's Budget                        | 3.576          | 8.205          | -                   | -                  | -                    |
| Total Adjustments                                 | -0.770         | -0.004         | -                   | -                  | -                    |
| • Congressional General Reductions                | -              | -              |                     |                    |                      |
| • Congressional Directed Reductions               | -              | -              |                     |                    |                      |
| • Congressional Rescissions                       | -              | -              |                     |                    |                      |
| • Congressional Adds                              | -              | -              |                     |                    |                      |
| • Congressional Directed Transfers                | -              | -              |                     |                    |                      |
| • Reprogrammings                                  | -              | -              |                     |                    |                      |
| • SBIR/STTR Transfer                              | -0.113         | -              |                     |                    |                      |
| • Adjustments to Budget Years                     | -0.657         | -0.004         | -                   | -                  | -                    |

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|---------------------------------------------------------|-------------|---------|---------|--------------|------------------------------------------------------------------------------|---------------|---------|---------|-------------------------------------------------|------------------|------------------|------------|
| Exhibit R-2A, RDT&E Project Justification: PB 2015 Army |             |         |         |              |                                                                              |               |         |         |                                                 | Date: March 2014 |                  |            |
| Appropriation/Budget Activity<br>2040 / 5               |             |         |         |              | R-1 Program Element (Number/Name)<br>PE 0604814A / Artillery Munitions - EMD |               |         |         | Project (Number/Name)<br>708 / XM982 Projectile |                  |                  |            |
| 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 |
| 708: XM982 Projectile                                   | -           | 3.576   | 8.205   | -            | -                                                                            | -             | -       | -       | -                                               | -                | -                | 11.781     |
| Quantity of RDT&E Articles                              | -           | -       | -       | -            | -                                                                            | -             | -       | -       | -                                               | -                |                  |            |

# The FY 2015 OCO Request will be submitted at a later date.

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

Excalibur is a Precision Guided Extended Range 155mm Artillery projectile providing Brigade Combat Teams an organic precision fires capability. Additionally it provides improved fire support capability due to its increased range of 40.5 kilometers and demonstrated accuracy of < 4 meters radial miss distances, which enables a first round effect on target reducing the number of rounds required while reducing collateral damage. Excalibur is compatible with the M777A2 Lightweight 155mm Howitzer (LW155) and the M109A6 Paladin Howitzer and Sweden's Archer Howitzer. Excalibur provides a 35% range increase over current Rocket Assisted Projectiles, with a < 10 meter accuracy circular error probable at all ranges. Excalibur is also highly resistant to Global Positioning System (GPS) jamming. Excalibur is an international program, teamed with the Kingdom of Sweden (KoS), who contributed resources towards the development and have procured rounds in accordance with an established Project Agreement for use in their Archer Howitzer.

Increment Ib completed a successful Milestone C Decision Review on December 12, 2012. The first Low Rate Initial Production contract was awarded on December 21, 2012.

**B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)**

|                                                                                                                                                                                                                                                                                                                                                    | <b>FY 2013</b> | <b>FY 2014</b> | <b>FY 2015</b> |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|----------------|----------------|
| <b>Title:</b> Increment Ib development support.<br><br><b>Articles:</b><br>                                                                                                                                                                                                                                                                        | 1.479          | 2.920          | -              |
| <b>Description:</b> Increment Ib development support.<br><br><b>FY 2013 Accomplishments:</b><br>Continuation of Increment Ib follow-on Artillery development support, completion of qualification testing, and prepare for IOT&E testing.<br><br><b>FY 2014 Plans:</b><br>Implementation of reliability growth effort and completion of the IOT&E. | -              | -              | -              |
| <b>Title:</b> Integrated Developmental Testing/Operational Testing (DT/OT), Safety/Reliability testing, and operational assessment for Increment Ib.<br><br><b>Articles:</b><br>                                                                                                                                                                   | 2.097          | 5.285          | -              |
| <b>Description:</b> Conduct Integrated Developmental Testing/Operational Testing (DT/OT) , Safety/Reliability testing, and operational assessment.                                                                                                                                                                                                 | -              | -              | -              |

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| Exhibit R-2A, RDT&E Project Justification: PB 2015 Army                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                |                |                         |                                                                              |                          |                | Date: March 2014                                |                |                |                             |                   |
| Appropriation/Budget Activity<br>2040 / 5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                |                |                         | R-1 Program Element (Number/Name)<br>PE 0604814A / Artillery Munitions - EMD |                          |                | Project (Number/Name)<br>708 / XM982 Projectile |                |                |                             |                   |
| <b>B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                |                |                         |                                                                              |                          |                | <b>FY 2013</b>                                  | <b>FY 2014</b> | <b>FY 2015</b> |                             |                   |
| <b>FY 2013 Accomplishments:</b><br>To conduct operational testing, safety and reliability testing, initial operational test and evaluation.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                |                |                         |                                                                              |                          |                |                                                 |                |                |                             |                   |
| <b>FY 2014 Plans:</b><br>To complete initial operational test and evaluation to support full rate production for Increment Ib.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                |                |                         |                                                                              |                          |                |                                                 |                |                |                             |                   |
| <b>Accomplishments/Planned Programs Subtotals</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                |                |                         |                                                                              |                          |                | 3.576                                           | 8.205          | -              |                             |                   |
| <b>C. Other Program Funding Summary (\$ in Millions)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                |                |                         |                                                                              |                          |                |                                                 |                |                |                             |                   |
| <b>Line Item</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | <b>FY 2013</b> | <b>FY 2014</b> | <b>FY 2015<br/>Base</b> | <b>FY 2015<br/>OCO</b>                                                       | <b>FY 2015<br/>Total</b> | <b>FY 2016</b> | <b>FY 2017</b>                                  | <b>FY 2018</b> | <b>FY 2019</b> | <b>Cost To<br/>Complete</b> | <b>Total Cost</b> |
| • Procurement Ammo: Procurement<br>Ammunition Army: Proj<br>155mm Extended Range:<br>XM982-U Excalibur: E80103                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 68.528         | 77.326         | 35.672                  | -                                                                            | 35.672                   | 45.518         | -                                               | -              | -              | -                           | 227.044           |
| <b>Remarks</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                |                |                         |                                                                              |                          |                |                                                 |                |                |                             |                   |
| <b>D. Acquisition Strategy</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                |                |                         |                                                                              |                          |                |                                                 |                |                |                             |                   |
| Excalibur is a family of Precision Guided Extended Range Munitions. In 1997, a competitive Engineering and Manufacturing Development (EMD) contract was awarded for the initial increment, with options for Low Rate Initial Production (LRIP) quantities. In coordination with the Army Acquisition Executive, the Army implemented an incremental development approach that provided for an early fielding capability in FY 2007 in response to an Urgent Needs Statement in support of Operation Iraqi Freedom (as of September 2010 re-named to Operation New Dawn) and Operation Enduring Freedom. Increment Ib was solicited as a full and open competition and awarded to two contractors in September 2008. Following the Increment Ib strategy, the Army conducted a demonstration phase followed by a shoot off between the two competing contractors and down selected to a single contractor for qualification and production. The shoot off was completed in July 2010 followed by the downselect decision on 25 August 2010 to support Phase II development and qualification. Increment Ib completed successful Milestone C Decision Review on December 12, 2012. The first Low Rate Initial Production contract was awarded on December 21, 2012. The contractor is currently testing/implementing reliability growth initiatives to further improve the overall reliability of the Increment Ib rounds. The Army will conduct an Initial Operational Test and Evaluation in fiscal year 2014 followed by a Full Materiel Release and Full Rate Production Decision. |                |                |                         |                                                                              |                          |                |                                                 |                |                |                             |                   |
| <b>E. Performance Metrics</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                |                |                         |                                                                              |                          |                |                                                 |                |                |                             |                   |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                |                |                         |                                                                              |                          |                |                                                 |                |                |                             |                   |

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| Exhibit R-3, RDT&E Project Cost Analysis: PB 2015 Army     |                        |                                                              |             |         |            |                                                                              |            |                 |            |                                                 |            | Date: March 2014 |                  |            |                          |
|------------------------------------------------------------|------------------------|--------------------------------------------------------------|-------------|---------|------------|------------------------------------------------------------------------------|------------|-----------------|------------|-------------------------------------------------|------------|------------------|------------------|------------|--------------------------|
| Appropriation/Budget Activity<br>2040 / 5                  |                        |                                                              |             |         |            | R-1 Program Element (Number/Name)<br>PE 0604814A / Artillery Munitions - EMD |            |                 |            | Project (Number/Name)<br>708 / XM982 Projectile |            |                  |                  |            |                          |
| Product Development (\$ in Millions)                       |                        |                                                              |             | FY 2013 |            | FY 2014                                                                      |            | FY 2015<br>Base |            | FY 2015<br>OCO                                  |            | FY 2015<br>Total |                  |            |                          |
| Cost Category Item                                         | Contract Method & Type | Performing Activity & Location                               | Prior Years | Cost    | Award Date | Cost                                                                         | Award Date | Cost            | Award Date | Cost                                            | Award Date | Cost             | Cost To Complete | Total Cost | Target Value of Contract |
| Misc Support Contracts                                     | Various                | Various : Various                                            | 3.645       | -       |            | -                                                                            |            | -               |            | -                                               |            | -                | -                | 3.645      | 3.645                    |
| Platform Integration/Fire Control - AFATDS                 | SS/CPIF                | Raytheon AFATDS : Fort Wayne, IN                             | 5.907       | -       |            | -                                                                            |            | -               |            | -                                               |            | -                | -                | 5.907      | 5.907                    |
| Govt Support for Paladin, LW155 Integration SW Development | MIPR                   | ARDEC, Software Engineering : Picatinny, NJ                  | 7.588       | -       |            | -                                                                            |            | -               |            | -                                               |            | -                | -                | 7.588      | 7.588                    |
| Increment 1b Development Phase 2                           | C/CPIF                 | Raytheon Missile System : Tucson, AZ                         | 77.428      | -       |            | -                                                                            |            | -               |            | -                                               |            | -                | -                | 77.428     | 77.428                   |
| Increment 1b Development Phase 1                           | C/FFP                  | Alliant Techsystems : Plymouth, MN                           | 30.773      | -       |            | -                                                                            |            | -               |            | -                                               |            | -                | -                | 30.773     | 30.773                   |
| Increment 1b Development Phase 1                           | C/FFP                  | Raytheon Missile System : Tucson, AZ                         | 30.413      | -       |            | -                                                                            |            | -               |            | -                                               |            | -                | -                | 30.413     | 30.413                   |
| Platform Integration & EPIAFS Software Development         | MIPR                   | Navy, Surface Warfare Center : MD                            | 0.230       | -       |            | -                                                                            |            | -               |            | -                                               |            | -                | -                | 0.230      | 0.230                    |
| Follow on Precision Artillery risk reduction               | C/CPFF                 | ARDEC : Picatinny, NJ                                        | 5.049       | -       |            | -                                                                            |            | -               |            | -                                               |            | -                | -                | 5.049      | 5.049                    |
| Platform Integration-Systems Contractor                    | MIPR                   | ARES : Annapolis, MD                                         | 0.840       | -       |            | -                                                                            |            | -               |            | -                                               |            | -                | -                | 0.840      | 0.840                    |
| TCM Merger Assessment                                      | SS/FP                  | Bofors Defence, Karlskoga : Sweden                           | 14.430      | -       |            | -                                                                            |            | -               |            | -                                               |            | -                | -                | 14.430     | 14.430                   |
| Fee on Excalibur Development Contract                      | C/CPIF                 | Raytheon Missile System : Tucson, AZ                         | 35.377      | -       |            | -                                                                            |            | -               |            | -                                               |            | -                | -                | 35.377     | 35.377                   |
| Platform Integration LW155 M777A2                          | C/CPIF                 | BAE : Burlington, VT                                         | 11.989      | -       |            | -                                                                            |            | -               |            | -                                               |            | -                | -                | 11.989     | 11.989                   |
| ARDEC fuze technology maturation (DOTC)                    | SS/FP                  | ARDEC : Picatinny, NJ                                        | 3.872       | -       |            | -                                                                            |            | -               |            | -                                               |            | -                | -                | 3.872      | 3.872                    |
| SS-SFM Test Projectiles                                    | C/FFP                  | Various : Varoius                                            | 10.815      | -       |            | -                                                                            |            | -               |            | -                                               |            | -                | -                | 10.815     | 10.815                   |
| Advanced Cargo Projectile Technology                       | MIPR                   | DMEA, McClellan : CA                                         | 2.390       | -       |            | -                                                                            |            | -               |            | -                                               |            | -                | -                | 2.390      | 2.390                    |
| Platform Integration Firing Tables Development             | MIPR                   | ARDEC, Firing Tables Branch Picatinny, NJ and : Aberdeen, MD | 2.399       | -       |            | -                                                                            |            | -               |            | -                                               |            | -                | -                | 2.399      | 2.399                    |

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| Exhibit R-3, RDT&E Project Cost Analysis: PB 2015 Army |                        |                                       |             |         |            |                                                                              |            |                 |            |                                                 |            | Date: March 2014 |                  |            |                          |
|--------------------------------------------------------|------------------------|---------------------------------------|-------------|---------|------------|------------------------------------------------------------------------------|------------|-----------------|------------|-------------------------------------------------|------------|------------------|------------------|------------|--------------------------|
| Appropriation/Budget Activity<br>2040 / 5              |                        |                                       |             |         |            | R-1 Program Element (Number/Name)<br>PE 0604814A / Artillery Munitions - EMD |            |                 |            | Project (Number/Name)<br>708 / XM982 Projectile |            |                  |                  |            |                          |
| Product Development (\$ in Millions)                   |                        |                                       |             | FY 2013 |            | FY 2014                                                                      |            | FY 2015<br>Base |            | FY 2015<br>OCO                                  |            | FY 2015<br>Total |                  |            |                          |
| Cost Category Item                                     | Contract Method & Type | Performing Activity & Location        | Prior Years | Cost    | Award Date | Cost                                                                         | Award Date | Cost            | Award Date | Cost                                            | Award Date | Cost             | Cost To Complete | Total Cost | Target Value of Contract |
| Excalibur Increment Ia Development                     | C/CPIF                 | Raytheon Missile System : Tucson, AZ  | 428.187     | -       |            | -                                                                            |            | -               |            | -                                               |            | -                | -                | 428.187    | 428.187                  |
| Subtotal                                               |                        |                                       | 671.332     | -       |            | -                                                                            |            | -               |            | -                                               |            | -                | -                | 671.332    | 671.332                  |
| Support (\$ in Millions)                               |                        |                                       |             | FY 2013 |            | FY 2014                                                                      |            | FY 2015<br>Base |            | FY 2015<br>OCO                                  |            | FY 2015<br>Total |                  |            |                          |
| Cost Category Item                                     | Contract Method & Type | Performing Activity & Location        | 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                                     | PO                     | PM Excalibur : Picatinny, NJ          | 27.771      | 0.300   | Nov 2012   | 0.400                                                                        | Oct 2013   | -               |            | -                                               |            | -                | -                | 28.471     | 28.471                   |
| Government Support-Excalibur XM982                     | MIPR                   | ARDEC : Picatinny, NJ                 | 67.482      | 1.179   | Nov 2012   | 2.500                                                                        | Jan 2014   | -               |            | -                                               |            | -                | -                | 71.161     | 71.161                   |
| Government Support- Ft Sill                            | MIPR                   | Ft. Sill : OK                         | 3.534       | -       |            | 0.020                                                                        | Nov 2013   | -               |            | -                                               |            | -                | -                | 3.554      | 3.554                    |
| Milestone Support                                      | C/FP                   | Camber : Alexandria, VA               | 1.792       | -       |            | -                                                                            |            | -               |            | -                                               |            | -                | -                | 1.792      | 1.792                    |
| Miscellaneous Support                                  | Various                | Various : Various                     | 4.175       | -       |            | -                                                                            |            | -               |            | -                                               |            | -                | -                | 4.175      | 4.175                    |
| Engineering Services Contract for Increment 1a-2       | SS/CPFF                | Raytheon Missile Systems : Tucson, AZ | 0.085       | -       |            | -                                                                            |            | -               |            | -                                               |            | -                | -                | 0.085      | 0.085                    |
| Paladin Platform Integration                           | MIPR                   | PM Paladin : Picatinny, NJ            | 0.930       | -       |            | -                                                                            |            | -               |            | -                                               |            | -                | -                | 0.930      | 0.930                    |
| Government Support - SS-SFM                            | MIPR                   | ARDEC : Picatinny, NJ                 | 1.625       | -       |            | -                                                                            |            | -               |            | -                                               |            | -                | -                | 1.625      | 1.625                    |
| Technical Spt Contract for Platform Integration        | C/FP                   | Camber : Dallas, TX                   | 0.821       | -       |            | -                                                                            |            | -               |            | -                                               |            | -                | -                | 0.821      | 0.821                    |
| Fire Control development support                       | MIPR                   | Fort Monmouth, NJ and : Fort Sill, OK | 1.008       | -       |            | -                                                                            |            | -               |            | -                                               |            | -                | -                | 1.008      | 1.008                    |
| Platform Integration Software Support                  | MIPR                   | Navy Surface Warfare Center : MD      | 0.390       | -       |            | -                                                                            |            | -               |            | -                                               |            | -                | -                | 0.390      | 0.390                    |
| Government TCM Support                                 | MIPR                   | ARDEC : Picatinny, NJ                 | 0.910       | -       |            | -                                                                            |            | -               |            | -                                               |            | -                | -                | 0.910      | 0.910                    |

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| Exhibit R-3, RDT&E Project Cost Analysis: PB 2015 Army                      |                              |                                                            |                |         |               |                                                                              |               |                 |               |                                                 |               | Date: March 2014 |                     |               |                                |
|-----------------------------------------------------------------------------|------------------------------|------------------------------------------------------------|----------------|---------|---------------|------------------------------------------------------------------------------|---------------|-----------------|---------------|-------------------------------------------------|---------------|------------------|---------------------|---------------|--------------------------------|
| Appropriation/Budget Activity<br>2040 / 5                                   |                              |                                                            |                |         |               | R-1 Program Element (Number/Name)<br>PE 0604814A / Artillery Munitions - EMD |               |                 |               | Project (Number/Name)<br>708 / XM982 Projectile |               |                  |                     |               |                                |
| Support (\$ in Millions)                                                    |                              |                                                            |                | FY 2013 |               | FY 2014                                                                      |               | FY 2015<br>Base |               | FY 2015<br>OCO                                  |               | FY 2015<br>Total |                     |               |                                |
| Cost Category Item                                                          | Contract<br>Method<br>& Type | Performing<br>Activity & Location                          | Prior<br>Years | Cost    | Award<br>Date | Cost                                                                         | Award<br>Date | Cost            | Award<br>Date | Cost                                            | Award<br>Date | Cost             | Cost To<br>Complete | Total<br>Cost | Target<br>Value of<br>Contract |
| Government Support-<br>Advanced Cargo Projectile<br>Technology              | MIPR                         | ARDEC : Picatinny,<br>NJ                                   | 0.353          | -       |               | -                                                                            |               | -               |               | -                                               |               | -                | -                   | 0.353         | 0.353                          |
| Government Support<br>Platform Integration                                  | MIPR                         | ARDEC : Picatinny,<br>NJ                                   | 6.241          | -       |               | -                                                                            |               | -               |               | -                                               |               | -                | -                   | 6.241         | 6.241                          |
| PM CAS SS-SFM                                                               | PO                           | PM CAS : Picatinny,<br>NJ                                  | 0.700          | -       |               | -                                                                            |               | -               |               | -                                               |               | -                | -                   | 0.700         | 0.700                          |
| Increment Ia Engineering<br>Services                                        | MIPR                         | DMEA : McClellan,<br>CA                                    | 5.078          | -       |               | -                                                                            |               | -               |               | -                                               |               | -                | -                   | 5.078         | 5.078                          |
| Increment Ia Engineering<br>Services                                        | C/CPFF                       | DRS : Eatontown, NJ                                        | 12.850         | -       |               | -                                                                            |               | -               |               | -                                               |               | -                | -                   | 12.850        | 12.850                         |
| Modeling and Structural<br>Development                                      | MIPR                         | Army Research<br>Labs : Adelphi, MD                        | 9.034          | -       |               | -                                                                            |               | -               |               | -                                               |               | -                | -                   | 9.034         | 9.034                          |
| Government Engineering<br>Support for Precision<br>Artillery Risk Reduction | MIPR                         | ARDEC : Picatinny,<br>NJ                                   | 2.750          | -       |               | -                                                                            |               | -               |               | -                                               |               | -                | -                   | 2.750         | 2.750                          |
| Subtotal                                                                    |                              |                                                            | 147.529        | 1.479   |               | 2.920                                                                        |               | -               |               | -                                               |               | -                | -                   | 151.928       | 151.928                        |
| Test and Evaluation (\$ in Millions)                                        |                              |                                                            |                | FY 2013 |               | FY 2014                                                                      |               | FY 2015<br>Base |               | FY 2015<br>OCO                                  |               | FY 2015<br>Total |                     |               |                                |
| Cost Category Item                                                          | Contract<br>Method<br>& Type | Performing<br>Activity & Location                          | Prior<br>Years | Cost    | Award<br>Date | Cost                                                                         | Award<br>Date | Cost            | Award<br>Date | Cost                                            | Award<br>Date | Cost             | Cost To<br>Complete | Total<br>Cost | Target<br>Value of<br>Contract |
| TECOM Test Range                                                            | MIPR                         | Yuma Proving<br>Grounds : Yuma, AZ                         | 23.768         | 2.000   | Jan 2013      | 3.240                                                                        | Nov 2013      | -               |               | -                                               |               | -                | -                   | 29.008        | 29.008                         |
| Test Instrumentation and<br>Analysis                                        | MIPR                         | Army Research<br>Labs : Adelphi, MD                        | 3.935          | -       |               | 0.196                                                                        | Dec 2013      | -               |               | -                                               |               | -                | -                   | 4.131         | 4.131                          |
| Telemetry Support                                                           | SS/FFP                       | Physical Science<br>Laboratories (PSL) :<br>Las Cruces, NM | 3.146          | -       |               | -                                                                            |               | -               |               | -                                               |               | -                | -                   | 3.146         | 3.146                          |
| Telemetry Support                                                           | MIPR                         | ARDEC : Picatinny,<br>NJ                                   | 17.711         | -       |               | 0.150                                                                        | Nov 2013      | -               |               | -                                               |               | -                | -                   | 17.861        | 17.861                         |
|                                                                             |                              |                                                            |                |         |               |                                                                              |               |                 |               |                                                 |               |                  |                     |               |                                |

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| Exhibit R-3, RDT&E Project Cost Analysis: PB 2015 Army                       |                        |                                           |             |         |            |                                                                              |            |                 |            |                                                 |            | Date: March 2014 |                  |            |                          |
|------------------------------------------------------------------------------|------------------------|-------------------------------------------|-------------|---------|------------|------------------------------------------------------------------------------|------------|-----------------|------------|-------------------------------------------------|------------|------------------|------------------|------------|--------------------------|
| Appropriation/Budget Activity<br>2040 / 5                                    |                        |                                           |             |         |            | R-1 Program Element (Number/Name)<br>PE 0604814A / Artillery Munitions - EMD |            |                 |            | Project (Number/Name)<br>708 / XM982 Projectile |            |                  |                  |            |                          |
| Test and Evaluation (\$ in Millions)                                         |                        |                                           |             | FY 2013 |            | FY 2014                                                                      |            | FY 2015<br>Base |            | FY 2015<br>OCO                                  |            | FY 2015<br>Total |                  |            |                          |
| Cost Category Item                                                           | Contract Method & Type | Performing Activity & Location            | Prior Years | Cost    | Award Date | Cost                                                                         | Award Date | Cost            | Award Date | Cost                                            | Award Date | Cost             | Cost To Complete | Total Cost | Target Value of Contract |
| Telemetry Cryptographic Support & Anti-Jam Support                           | MIPR                   | Ft. Huachuca : AZ                         | 0.822       | 0.097   | Jun 2013   | -                                                                            |            | -               |            | -                                               |            | -                | -                | 0.919      | 0.919                    |
| Target Replacement, Definition, Maintenance and Repair and Threat Assessment | MIPR                   | Target Management Office : Huntsville, AL | 1.558       | -       |            | 0.078                                                                        | Nov 2013   | -               |            | -                                               |            | -                | -                | 1.636      | 1.636                    |
| Operational Test Support & AEC                                               | MIPR                   | ATEC : Alexandria, VA                     | 9.457       | -       |            | 0.200                                                                        | Dec 2013   | -               |            | -                                               |            | -                | -                | 9.657      | 9.657                    |
| ARDEC Testing                                                                | MIPR                   | ARDEC : Picatinny, NJ                     | 2.814       | -       |            | 0.221                                                                        | Jan 2014   | -               |            | -                                               |            | -                | -                | 3.035      | 3.035                    |
| TECOM Test Range                                                             | MIPR                   | White Sands Missile Range : NM            | 13.595      | -       |            | -                                                                            |            | -               |            | -                                               |            | -                | -                | 13.595     | 13.595                   |
| Operational Test Support                                                     | MIPR                   | Ft. Sill : OK                             | 3.244       | -       |            | 1.200                                                                        | Nov 2013   | -               |            | -                                               |            | -                | -                | 4.444      | 4.444                    |
| Test Gun Equipment                                                           | MIPR                   | Watervliet Arsenal : NY                   | 3.972       | -       |            | -                                                                            |            | -               |            | -                                               |            | -                | -                | 3.972      | 3.972                    |
| Test Hardware                                                                | SS/CPFF                | SAVIT : Parsippany, NJ                    | 0.450       | -       |            | -                                                                            |            | -               |            | -                                               |            | -                | -                | 0.450      | 0.450                    |
| Live Fire Test and Evaluation                                                | MIPR                   | ARL : Aberdeen, MD                        | 0.697       | -       |            | -                                                                            |            | -               |            | -                                               |            | -                | -                | 0.697      | 0.697                    |
| Tri-Service Software Assessment                                              | MIPR                   | OSD : Washington, DC                      | 0.061       | -       |            | -                                                                            |            | -               |            | -                                               |            | -                | -                | 0.061      | 0.061                    |
| SS-SFM Testing                                                               | MIPR                   | Yuma Proving Grounds : Yuma, AZ           | 2.300       | -       |            | -                                                                            |            | -               |            | -                                               |            | -                | -                | 2.300      | 2.300                    |
| Subtotal                                                                     |                        |                                           | 87.530      | 2.097   |            | 5.285                                                                        |            | -               |            | -                                               |            | -                | -                | 94.912     | 94.912                   |
|                                                                              |                        |                                           | Prior Years | FY 2013 |            | FY 2014                                                                      |            | FY 2015 Base    |            | FY 2015 OCO                                     |            | FY 2015 Total    | Cost To Complete | Total Cost | Target Value of Contract |
| Project Cost Totals                                                          |                        |                                           | 906.391     | 3.576   |            | 8.205                                                                        |            | -               |            | -                                               |            | -                | -                | 918.172    | 918.172                  |
| Remarks                                                                      |                        |                                           |             |         |            |                                                                              |            |                 |            |                                                 |            |                  |                  |            |                          |

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|--------------------------------------------------------------|--|--|--------------------------------------------------------------------------------------------|--|--|
| <b>Exhibit R-4, RDT&amp;E Schedule Profile:</b> PB 2015 Army |  |  | <b>Date:</b> March 2014                                                                    |  |  |
| <b>Appropriation/Budget Activity</b><br>2040 / 5             |  |  | <b>R-1 Program Element (Number/Name)</b><br>PE 0604814A / <i>Artillery Munitions - EMD</i> |  |  |
|                                                              |  |  | <b>Project (Number/Name)</b><br>708 / <i>XM982 Projectile</i>                              |  |  |

|                                                            | FY 2013 |   |   |   | FY 2014 |   |   |   | FY 2015 |   |   |   | FY 2016 |   |   |   | FY 2017 |   |   |   | FY 2018 |   |   |   | FY 2019 |   |   |   |
|------------------------------------------------------------|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|
|                                                            | 1       | 2 | 3 | 4 | 1       | 2 | 3 | 4 | 1       | 2 | 3 | 4 | 1       | 2 | 3 | 4 | 1       | 2 | 3 | 4 | 1       | 2 | 3 | 4 | 1       | 2 | 3 | 4 |
| Increment Ia-2 Prod. Deliveries                            |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |
| Increment Ib development                                   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |
| Increment Ib Milestone C                                   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |
| Increment Ib Production Award                              |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |
| Increment Ib Production Deliveries                         |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |
| Increment Ib First Article Testing                         |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |
| Execution of DT/OT Supporting MS-C                         |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |
| Final Safety/Reliability Tests Supporting Material Release |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |
| Preparation & Execution of Increment Ib IOT&E              |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |
| Increment Ib IOC                                           |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |
| Increment Ib Full Rate Production Review                   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |

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|---------------------------------------------------------------|--------------------------------------------------------------------------------------------|---------------------------------------------------------------|-------------------------|
| <b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2015 Army |                                                                                            |                                                               | <b>Date:</b> March 2014 |
| <b>Appropriation/Budget Activity</b><br>2040 / 5              | <b>R-1 Program Element (Number/Name)</b><br>PE 0604814A / <i>Artillery Munitions - EMD</i> | <b>Project (Number/Name)</b><br>708 / <i>XM982 Projectile</i> |                         |

Schedule Details

| Events                                                     | Start   |      | End     |      |
|------------------------------------------------------------|---------|------|---------|------|
|                                                            | Quarter | Year | Quarter | Year |
| Increment Ia-2 Prod. Deliveries                            | 4       | 2011 | 2       | 2014 |
| Increment Ib development                                   | 4       | 2008 | 2       | 2014 |
| Increment Ib Milestone C                                   | 1       | 2013 | 1       | 2013 |
| Increment Ib Production Award                              | 1       | 2013 | 1       | 2013 |
| Increment Ib Production Deliveries                         | 2       | 2014 | 4       | 2016 |
| Increment Ib First Article Testing                         | 1       | 2014 | 1       | 2014 |
| Execution of DT/OT Supporting MS-C                         | 2       | 2012 | 1       | 2013 |
| Final Safety/Reliability Tests Supporting Material Release | 4       | 2012 | 4       | 2013 |
| Preparation & Execution of Increment Ib IOT&E              | 4       | 2013 | 2       | 2014 |
| Increment Ib IOC                                           | 3       | 2014 | 3       | 2014 |
| Increment Ib Full Rate Production Review                   | 3       | 2014 | 3       | 2014 |